



JPRS Report

Proliferation Issues

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PROLIFERATION ISSUES

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CONTENTS

2 December 1991

[This report contains foreign media information on issues related to worldwide proliferation and transfer activities in nuclear, chemical, and biological weapons, including delivery systems and the transfer of weapons-relevant technologies.]

AFRICA

SOUTH AFRICA

Newspaper Details 'Covert' Arms Import, Export <i>[THE WEEKLY MAIL 8-14 Nov]</i>	1
Armscor To Market New Antiaircraft Gun <i>[SAPA]</i>	2
South African Airway Said To Carry Armscor Cargo	2
'Clandestine' Cargo <i>[THE WEEKLY MAIL 8-14 Nov]</i>	2
Armscor Rejects Allegations <i>[SAPA]</i>	3
Transport Department To Investigate <i>[Johannesburg Radio]</i>	3
Documents 'Prove' Noninvolvement <i>[Johannesburg TV]</i>	3
Major Importers Involved in Supplying Armaments <i>[THE WEEKLY MAIL 8-14 Nov]</i>	4

CHINA

Government Opposed To Nuclear Weapons in Korea <i>[AFP]</i>	5
Ministry Denies Nuclear Cooperation With Iraq <i>[RENMIN RIBAO 11 Nov]</i>	5
Official on Willingness 'To Consult' on Missiles <i>[Tokyo KYODO]</i>	5

EAST ASIA

JAPAN

Government Welcomes Nuclear-Free Korea Proposal <i>[KYODO]</i>	6
--	---

NORTH KOREA

PRC Support for Nuclear Proposal Cited <i>[KCNA]</i>	6
--	---

SOUTH KOREA

'Source' Discusses U.S. Pullout of Nuclear Arms <i>[CHOSON ILBO 9 Nov]</i>	6
Plan To Stop DPRK Nuclear Efforts Viewed <i>[KYONGHYANG SINMUN 17 Nov]</i>	7
Defector on North's Hidden Nuclear Facilities <i>[THE KOREA HERALD 7 Nov]</i>	7
Defector on Aid to North's Nuclear Program <i>[THE KOREA TIMES 8 Nov]</i>	8
Declaration Aims To Halt North's Nuclear Program <i>[THE KOREA HERALD 9 Nov]</i>	8

EAST EUROPE

HUNGARY

Government Tightens Chemical Arms Trade Controls <i>[MTI]</i>	10
---	----

YUGOSLAVIA

Consortium Agrees To Build USSR Chemical Plant <i>[TANJUG]</i>	10
--	----

LATIN AMERICA

ARGENTINA

Nuclear Cooperation Accord Signed With Uruguay *[TELAM]* 11

BRAZIL

Budget for Angra II To Increase in 1992 *[GAZETA MERCANTIL 22 Oct]* 11
ACRJ Urges Completion of Angra II, III *[GAZETA MERCANTIL 23 Oct]* 11
Angra II Funding Inadequate To Meet Timetable *[GAZETA MERCANTIL 29 Oct]* 12
Government Intends To Only Complete Angra II *[GAZETA MERCANTIL 29 Oct]* 12
Furnas Unable To Maintain Angra II, III *[GAZETA MERCANTIL 29 Oct]* 13

NEAR EAST & SOUTH ASIA

AFGHANISTAN

USSR Withdrawing Missile Crews *[AFP]* 14

INDIA

State May Sell Nuclear Research Reactor to Iran *[AFP]* 14
Plans To Sell Iran Nuclear Reactor Denied *[Beijing XINHUA]* 14
Official Defends Right To Sell Reactor to Iran *[AFP]* 14
Envoy: Libya Sought Indian Nuclear Technology *[THE TIMES OF INDIA 11 Oct]* 15
Pakistan Capable of Producing 10 Nuclear Bombs *[Delhi Radio]* 15
Delhi Opposes Pakistan's Nuclear-Free Proposal *[Delhi Radio]* 15
Pakistani Nuclear-Free Bid Said 'Not Serious' *[Delhi Radio]* 15
BJP Official Wants Indian Nuclear Capability *[Delhi Radio]* 15
Official on Narora Atomic Power Plant Features *[THE HINDUSTAN TIMES 25 Oct]* 16
Nuclear Scientists' Foreign Contracts Restricted *[THE TIMES OF INDIA 12 Oct]* 17
AEC Chief Interviewed on Nuclear Power Progress *[THE HINDU 17 Oct]* 17
AEC Chief: Possible To Build Own Reactors *[THE HINDU 2 Oct]* 19

IRAN

U.S., Western Concern on Nuclear Cooperation Viewed 20
President Condemns U.S. Stand *[IRNA]* 20
Va'izi Reaffirms Policy to EC *[IRNA]* 20
Commentary Notes West's Fears *[JAHAN-E ESLAM 5 Nov]* 20
U.S. Concern Over Nuclear Issue 'Hypocritical' *[IRNA]* 21
Commentary Assails 'Propaganda' on Nuclear Arms *[Tehran Radio]* 21
Paper Reports China Supplying Enriched Uranium *[Baghdad AL-IRAQ 9 Nov]* 22
Paper Says Tehran Seeking Nuclear Capability *[Jerusalem Radio]* 23

IRAQ

'Analysis' of Iranian Nuclear Plans *[Bahgdad Radio]* 23

ISRAEL

Indian Supply of Nuclear Reactor to Iran Viewed 23
'Sources' Express 'Serious Fear' *[YEDI'OT AHARONOT 11 Nov]* 23
Clarification Sought From India *[HA'ARETZ 12 Nov]* 23

PAKISTAN

Paper Notes China Ties, Nuclear Proliferation *[THE MUSLIM 29 Oct]* 24
Chinese Aid, Support for Nuclear Stand *[THE MUSLIM 29 Oct]* 25
Rejects 'Discriminatory' Nuclear Curbs *[AFP]* 25

UN Said To Support Nuclear Proposal <i>[Islamabad Radio]</i>	26
Government Welcomes UN Nuclear Arms Resolution <i>[Islamabad Radio]</i>	26
Prime Minister's Reportage on Nuclear Arms	27
Denies Program Exists <i>[WAKH]</i>	27
Denies Helping Iran With Reactor <i>[Islamabad Radio]</i>	27
Minister Notes Nuclear Program's Peaceful Nature <i>[Islamabad Radio]</i>	27
Any Attack on Nuclear Installations 'Act of War' <i>[Islamabad International]</i>	28

SOVIET UNION

U.S., USSR To Develop Nonproliferation Experts <i>[NEZAVISIMAYA GAZETA 19 Oct]</i>	29
International Arms Trade Criticized <i>[TRUD 13 Nov]</i>	29
Canadian Concern Over Nuclear Sales Cited <i>[SELSKAYA ZHIZN 12 Nov]</i>	31
Swiss Confiscate Illegally Exported Uranium <i>[RABOCHAYA TRIBUNA 15 Nov]</i>	31
Union Agrees To Hold Iraq's Enriched Uranium <i>[INTERFAX]</i>	31
Union Agrees To Bury Iraq's Enriched Uranium	32
Agreement With UN <i>[KOMSOMOLSKAYA PRAVDA 15 Nov]</i>	32
Requested by Atomic Energy Agency <i>[INTERFAX]</i>	32
Commentator Views DPRK Nuclear Issue <i>[Moscow International]</i>	32
Intelligence Sources on Nuclear Weapons Control <i>[Hamburg BILD AM SONNTAG 17 Nov]</i>	33
Commentary on Transfer of Physicists, Detonators <i>[Moscow TV]</i>	33
Missiles Commander Notes Need for Control <i>[Moscow International]</i>	34
Ministries Remark on Detonator Sales Report <i>[KOMSOMOLSKAYA PRAVDA 15 Nov]</i>	34
Minimal Nuclear Deterrence Called New Strategy <i>[Moscow International]</i>	35
Republic Denies Missile-Building Accusation <i>[INTERFAX]</i>	35
Central Control of Nuclear Weapons Discussed <i>[Moscow TV]</i>	35
Republic Denies Sending Missiles to Chechen <i>[Moscow Radio]</i>	36
Ukraine Foreign Minister on Nuclear Arms <i>[Sao Paulo FOLHA DE SAO PAULO 11 Nov]</i>	36
Ukraine Official Views Defense Plans, Nuclear Weapons <i>[Prague RUDE PRAVO 7 Nov]</i>	36
Yakutsk Declares Territory Nuclear-Free Zone <i>[INTERFAX]</i>	37
Inquiry Into 1979 Sverdlovsk Anthrax Event <i>[LITERATURNAYA GAZETA No 45, 13 Nov]</i>	37

WEST EUROPE

FRANCE

Reductions in Nuclear Forces Announced <i>[LE MONDE 30 Oct]</i>	38
Nuclear Authorities Anxious About Funding Cuts <i>[LE MONDE 13 Nov]</i>	38

GERMANY

Bonn 'Quarreling' Over Warship Sale to Taiwan <i>[DER SPIEGEL 11 Nov]</i>	39
Bundeswehr Reportedly Delivered Arms to Israel <i>[DER SPIEGEL 18 Nov]</i>	40
Firms Continue Arms Deals With Islamic States <i>[DER SPIEGEL 18 Nov]</i>	40
Islamic States Continue To Seek Arms, Technology <i>[DPA]</i>	43
BND Warning on Arms Aid to Middle East <i>[DPA]</i>	43
Defense Ministers on Nuclear Arms <i>[ADN]</i>	43

ITALY

Seven Arrested for Arms Sales to Croatia, Others <i>[AFP]</i>	44
---	----

SWITZERLAND

Seven Uranium Dealers Arrested	44
Materials Seized <i>[Vienna DIE PRESSE 14 Nov]</i>	44
Previous Sales Attempt <i>[Bern International]</i>	44

SOUTH AFRICA

Newspaper Details 'Covert' Arms Import, Export
*MB0811185391 Johannesburg THE WEEKLY MAIL
in English 8-14 Nov 91 p 2*

[Report by Gavin Evans: "How Tons of Arms Got Through The Sanctions Net"]

[Text] The Weekly Mail can today give details from official state documents of how companies in the United States, Japan, Britain, Switzerland, Italy, Germany, Austria, France, the Netherlands, Australia and Brazil have been engaged in large-scale covert arms sales to South Africa—most in violation of the United Nations arms embargo.

In addition, South Africa exported large quantities of arms and military equipment in the mid-1980s to several European, American and African countries.

Among the South African exports were:

- 7,658kg of "bombs, grenades, torpedoes, mines, guided weapons and missiles and similar munitions of war, and parts thereof: to Iraq
- 4,760kg of 68mm rockets to Gabon
- 1,660kg of shotguns for Argentina
- 10 boxes of ammunition, and 100 boxes of other military equipment for Malawi
- 14,000kg of teargas powder, and 9,150kg of ammunition and other equipment for Chile
- Large quantities of aircraft and other military equipment parts to France
- 19,350kg of 90mm F1 cartridge cases and 300kg of 90mm ammunition for Belgium
- 196kg of practice grenades for Spain
- 160kg of the highly flammable chemical, guanidine nitrate, to the United States.

The papers show that South African Airways was frequently a carrier for this equipment. One plane used on several occasions was the SA Helderberg which exploded in mid-air, killing all its passengers, in 1987.

The Weekly Mail has documentary evidence that the Helderberg was used for the carrying of dangerous chemicals, including 6,000kg of red phosphorus which is used for the manufacture of napalm.

The Weekly Mail received more than 100 documents detailing these transactions from a government source. While most of the sales took place in the mid-1980s, the source said that most of the countries involved—including Iraq and Israel—had continued to trade with Armscor at least until last year.

In most cases no customs duty was paid on any of these imports. The documents were signed by senior Armscor personnel, but Armscor frequently used private companies to import the arms—presumably to bypass sanctions.

An indication of how the state attempted to disguise these transactions comes from an Armscor document relating to the import of military equipment from the Marubeni Corporation of Osaka, Japan. It is addressed to the importer, Hebox Textiles Ltd, Natal, and marked "Restricted: " "For items partially or wholly procured from overseas, reference to Armscor, subsidiaries, SADF [South African Defense Force] or any government department shall not appear on any containers nor appear on any overseas correspondence/documentation."

In addition to Armscor and its subsidiaries, several other major South African companies were involved in these transactions, including Barlow Rand (through its subsidiary Sandock Austral Ltd), Shell South Africa and Rennies Shipping.

Armaments and military equipment and materials imported by Armscor from overseas countries included the following:

- 29kg of "Aircraft parts—other" from Aerolyusa, Westbury, New York, United States
- 165kg "Bomb calorimeter parts" for Armscor's missile production subsidiary, Somchem [expansion unknown], from Parr Instrument Company in the United States
- 37kg of "Chemical preparations, other" from Electronic System Int Inc, Lancaster Pennsylvania
- "Parts of military projectors" and "Oerlikon pressure test barrels," for Somchem, from Machine Tool Works Oerlikon Bührle Ltd, Zurich Switzerland
- "Spare parts of artillery weapons, other" from Oerlikon, Zurich, Switzerland
- 2,492.8kg of "aircraft parts—other" from Ofema, Paris, France, imported for Armscor by Olsino Service, Pretoria
- "Electrical apparatus for making and breaking electrical circuits ..." from Plessey Radar Ltd, Surrey, England
- "Remote control box, Molynx" and other equipment from an unstated British company, directly for the Department of Defence in Pretoria
- 102kg "AVARC Graphite 87," from Charles Tennant and Co, London
- "Double barrel shotguns and Perazzi combo trap/trench 12g shotgun model mx3 with spare single barrel for ATA trap," from Italy (company not stated)
- Several hundred high calibre shotguns, 400,156 revolvers, pistols and other firearms and shotgun spares from Italy (company not stated)
- Large quantities of radar equipment from Fiear S and L, Milan Italy
- Aircraft parts from Provest, Varese, Italy
- 110kg of "parts for pistols" from Josef Just, Ferlach, Austria
- 45kg of "other parts of arms" (spotter tracers and diaphragm protectors) from Auz Gesellschaft für Verrbr und Messtechn GmbH, Graz Austria
- 1,660kg of cartridge cases and a 492kg surfacer planer from Rockwell DO Brazil

- 200kg of stontonium oxalate from Alphar Chemicals, New South Wales, Australia
- 615 military binoculars from Highmount Company Ltd, Japan
- “Parts of other arms” from AYL GES, Dusseldorf, Germany
- Sidearms with scabbards and sheaths from Hurster GmbH and Co, Solingen, Hamburg
- Gas masks from WP Johns and Sohn, Hamburg, Germany
- Gun drills from Boteck, Germany
- 126kg of self-loading pistols from Star Bonifacio, Fibar, Spain
- “Metz Flashguns and accessories” from Metz Apparatewerke, Fuerth/Bay Germany, for SADF Military Intelligence.

An Armscor spokesman said yesterday: “It is well-known that Armscor exports products to many countries, but we do not say to whom we sell or from whom we buy.”

Armscor To Market New Antiaircraft Gun

*MB1311161291 Johannesburg SAPA in English
1544 GMT 13 Nov 91*

[Text] Pretoria Nov 13 SAPA—Armscor [Armaments Corporation of South Africa] is to release the ZA-35 self-propelled anti-aircraft gun [SPAAG], a new air defence system, onto the international market, Armscor Chairman Mr Johan van Vuuren announced on Wednesday.

According to an Armscor statement, the ZA-35 SPAAG comprises a 35mm rapid-fire gun of new design which is mounted on a Rooikat [Red Cat] armoured car and has its own radar for target detection and acquisition.

Target tracking is done by means of a stabilised electro-optical sight which uses a high resolution TV camera as its main sensor.

There is also an infra-red camera for night use, as well as a laser rangefinder.

“All the systems were designed and developed locally,” said Mr van Vuuren.

He said if international reaction to the gun vehicle was favourable it would be complemented by a missile vehicle, which would be equipped with a new high performance anti-aircraft missile.

“This system will provide cover against attacks from aircraft that are too high for the 35mm guns,” said Mr van Vuuren.

South African Airway Said To Carry Armscor Cargo

‘Clandestine’ Cargo

*MB0811160091 Johannesburg THE WEEKLY MAIL
in English 8-14 Nov 91 p 2*

[Report by Eddie Koch: “Helderberg’s Dangerous Cargo”]

[Text] The Helderberg, South African Airway’s [SAA] Boeing 747 that crashed, killing 159 passengers in the country’s biggest-ever air disaster, was used by Armscor [Armaments Corporation of South Africa] over a number of years to ferry large and clandestine consignments of highly explosive chemicals into South Africa in contravention of the international arms embargo against Pretoria.

Official documents in the possession of The Weekly Mail show that the Helderberg, which plummeted into the sea in late 1987 after a mystery explosion on board, carried large consignments of highly combustible materials needed by Armscor for the manufacture of bombs, explosives, napalm, smoke bombs and pyrotechnics.

The documents show that a huge cargo including 6,000kg of red phosphorous—an incendiary material used to make napalm, smoke bombs and other explosives—was carried from Germany to South Africa on the ill-fated Boeing as early as November 1984.

Other large loads of explosives carried by SAA aircraft and destined for Armscor companies included 300kg of antimony trisulphide, used in the manufacture of explosives and pyrotechnics and potassium chlorate, a highly combustible material used to make explosives, pyrotechnics and percussion caps.

There is also evidence that another flight of the Helderberg carried 300kg of lanthanum oxide, a rare mineral needed for the manufacture of strong and light alloys needed to make missiles, into South Africa from Germany.

An official inquiry into the Helderberg disaster, headed by Justice Cecil Margo, established that the Boeing crashed into the sea off Mauritius after an explosion in its hold, but failed to explain the cause of the blast.

The Weekly Mail’s investigation is the first to come up with hard evidence of widespread suspicions expressed during the inquiry that the plane was carrying a cargo of fire-works or explosives.

During the Margo probe former SAA pilot Dennis Cronje made a special plea for the board to investigate whether “the military and Armscor had any contentious substances on board.”

“I do feel that there had been incidents in the past where quasi or semi-covert operations have taken place,” Cronje told the inquiry. He added that his suspicions

were based "on the contempt which the captain's supreme command of the airplane has received over many, many years."

The official record of the inquiry says that Margo responded to the request by saying: "We can't waste time on that. If you get someone who has direct knowledge and bring him to us, we'll listen to him."

The documents corroborate Cronje's claims by showing that the Helderberg was used to bust the arms embargo against South Africa by hauling explosives and other armaments from as far back as 1984—more than three years before the Helderberg crashed in November 1987.

The Margo probe, which failed to come up with an explanation for the explosion that led the crash, lasted two and a half years and cost R[rand]26-million.

During the inquiry the Inspectorate of Explosives, which is required by law to give permission for the import of explosives into the country, declined to comment on whether such material had been allowed into the hold of the Helderberg.

Other evidence produced during the hearings showed that a consignment of tennis rackets, which contained pieces of heat-resistant graphite, melted in the fire. This led to a belief that extremely combustible material was being carried in the hold of the plane.

The Helderberg broke up when it hit the ocean, but it is believed that all of the 159 passengers and crew died from burns or asphyxiation from smoke that filled the passenger cabins and fight deck after the blast.

The Margo inquiry also found that the explosion damaged cables that may have caused the aircraft to spin out of control.

An SAA official in the airline's freight department told The Weekly Mail that red phosphorous and other explosive material listed in the customs documents as being secretly airfreighted into South Africa are classified as extremely dangerous goods and require special permission to be included in the cargo holds of aircraft.

The inquiry did come up with evidence of pyrotechnical material embedded in the debris of the aircraft but this remained inconclusive.

According to the documents, overseas companies that broke the arms embargo by exporting chemicals to Armscor and its front companies include Hoechst in Germany, Chemische Fabrike Uetikon in Switzerland and Beiberge Bergwete Union in Austria.

Armscor Rejects Allegations

MB0811165491 Johannesburg SAPA in English
1448 GMT 8 Nov 91

[Text] Pretoria Nov 8 SAPA—The South African arms manufacturer, Armscor has rejected allegations published on Friday, in a Johannesburg weekly newspaper

that they had regularly transported explosive chemicals in the civilian carrier the Helderberg.

The SA [South African] Airways Boeing 747 crashed in the country's worst air disaster in 1987, killing 159 passengers.

Mr Johan van Vuuren, the chairman of Armscor, said in a media statement that Armscor was fully aware of the provisions of IATA [International Air Transport Association] regulations and observed them at all times.

"The insinuation that Armscor carried red phosphorous on the ill-fated Helderberg is malicious. It implies that Armscor makes improper use of commercial airlines in contravention of the IATA regulations, and in this way endangers civilian lives.

"Armscor rejects such an implication with contempt," Mr van Vuuren concluded.

The newspaper claimed to have "hard evidence" that the airplane was regularly used to ferry explosives and armaments.

Transport Department To Investigate

MB1411070891 Johannesburg South African
Broadcasting Corporation Network in English
0500 GMT 14 Nov 91

[Text] The Department of Transport is to study possible new evidence next week after claims that the SAA Helderberg was regularly used by Armscor to ferry clandestine cargoes of highly explosive chemicals.

However, the director of Aviation Safety, Mr. Renier van Zyl, said the government would not reconvene an inquiry into the air disaster unless some spectacular new evidence came to light. He was reacting to a news report that the Helderberg carried large quantities of highly combustible materials needed by Armscor for the manufacture of bombs and explosives.

Mr. van Zyl said that although the cause of the fire that caused the Helderberg to crash had never been established, the possibility of the plane crashing due to the ignition of explosives was highly unlikely. Armscor has rejected the claims.

Documents 'Prove' Noninvolvement

MB1411201091 Johannesburg SABC TV 1 Network
in English 1800 GMT 14 Nov 91

[Text] Armscor [Armaments Corporation of South Africa] has released documents that prove that the SAA [South African Airways] aircraft Helderberg was not used by the organization to ferry explosive chemicals.

The documents were released today following allegations last week that the ill-fated aircraft was used regularly to transport chemicals. Peter Theron has the details:

[Begin Theron video recording] Newspaper reports claimed that official documents existed that the Helderberg, which plummeted into the sea in 1987 after an explosion on board, was over a number of years, used to carry large consignments of red phosphorous. Armscor rejected suggestions that the airliner, which crashed off Mauritius killing 159 people, was used to carry such dangerous cargo.

The documents prove that 6,000 kg of red phosphorous were in fact transported from Rotterdam in a ship called the SA Helderberg. The ship left Rotterdam on 5 November 1984. [end recording]

Major Importers Involved in Supplying Armaments

MB0911072291 Johannesburg THE WEEKLY MAIL in English 8-14 Nov 91 p 3

[Report by Paul Stober and Gavin Evans: "Major SA [South African] Companies Implicated"]

[Text] At least 61 South African and 38 overseas companies were involved in importing and exporting thousands of [metric] tons of armaments for Armscor [Armaments Corporation of South Africa] in the mid-1980s, official state documents in the hands of The Weekly Mail show.

The South African companies included seven Armscor affiliate companies and 55 private and public companies, including some major players in the South African economy. Among these are the following:

- The Barlow Rand subsidiary, Sandock Austral, imported 12.3 metric tons of explosive resistant aluminium steel from Germany for Armscor. Despite extensive attempts to contact Barlow Rand, the corporation did not respond to The Weekly Mail's calls.
- Shell South Africa imported 5.7 metric tons of Isopropyl Alcohol from the Netherlands for use by Somchem, the Armscor subsidiary which produces rockets, missiles and rocket fuel.
- Bayers South Africa imported 7.8 metric tons of cyclohexanone, also used in Armscor's Somchem missile company.
- Intertechnic (Pty) Ltd, which has branches in Cape Town and Pretoria, imported spare parts of artillery and military projectors for Somchem.
- Protea Holding (Cape) brought in parts of "bomb calometers" from the United States for the Armscor subsidiary.

—Nimrod International, the company listed in several transactions—including the sale of missiles, bombs, torpedoes and grenades to Iraq—could not be traced by either The Weekly Mail or MacGregor's Who Owns Whom. No evidence of the company's existence could be found, although a number of bills of entry for the export of South African goods give a Sunnyside, Pretoria, post office box address.

In several cases the carrier for the armaments was Rennies Shipping.

Other South African companies named in the documents are: Hubert Davies Electrical Engineering, Pretoria; Pretoria Instrument Makers; Tool Techniques (Pty) Ltd, Kempton Park; Protea Holding Cape; Brumco Metal Pressing, Pretoria; Hebox Textiles Ltd, Natal; Lew (Pty) Ltd, Cape Town; Sparks and Ellis (Cape) (Pty) Ltd; TI Electronics, Randburg; Rust Enterprises, Pretoria; Delgi Electronics (Pty) Ltd, Sandton; Charles Generator Services, Pretoria; Photo Agencies (Pty) Ltd, Cape Town; Suburban Guns (Pty) Ltd, Cape Town; Africarriers (Pty) Ltd, Cape Town; AA Ball, Cape Town; The Tailored Man, Johannesburg; Cullinan Electronics (Pty) Ltd, Johannesburg; Prokura Diesel Services, Cape Town; Mega Plastic Industries (Pty) Ltd, Johannesburg; Day Technical Products Johannesburg; RSM Chemicals (Pty) Ltd, Pretoria; Dart Communications (Pty) Ltd, Alberton; Holpro Chemicals (Pty) Ltd, Johannesburg; Apeco-chem (Pty) Ltd; Match Trading (Pty) Ltd, New Germany; M and E Tools (Pty) Ltd, Johannesburg; Biolab Chemicals (Pty) Ltd, Lynne East and Nicolas Yale, Johannesburg.

The following Armscor subsidiaries were involved: Atlas Aircraft Corporation, Eloptro, Kentron, Musgrave Manufacturers and Distributors, Pretoria and Metal Pressing, Somchem and Swartklip Products.

Foreign companies involved in exporting armaments, chemicals, equipment and technology to Armscor included the following: (West) Germany—Aylges, GMBH, Amco Chemie, Hoechmst, Bote, Dragerwerk, Herman C Starck, Stucki, Elp EsChem, WP Johns and Sons; Italy—Provest, Fiar SRL; Spain—Star Boniface, Habia Fercable; Switzerland—Oerlikon, Chemische Fabric Oerlikon, Balzers Furstenum, Eastman Chemical international; USA—Charles Tennant and Company, Barium and Chemicals, Electronic Systems, Information Handling, Parr Instruments, Aerolyusa; France—Ofema, Bernady Chimie SA; Austria—Bleiberger Bergwerker, Joseph Just; Japan—Mori Seiki, Highmount Co Ltd, Marubeni; United Kingdom—Plessey Radar, Armelite Body Armour, Neil Tools, Henri Gradel; and Australia—Alphar Chemicals.

Government Opposed To Nuclear Weapons in Korea

*HK1411073691 Hong Kong AFP in English 0726 GMT
14 Nov 91*

[Text] Seoul, Nov 14 (AFP)—Chinese Foreign Minister Qian Qichen said here Thursday that Beijing did not want any nuclear weapons on the Korean peninsula but opposed an international campaign to pressure Pyongyang to abandon its nuclear ambitions.

Qian, here for an Asia-Pacific economic conference, told an unprecedented press conference that he was not clear about the scope of North Korea's nuclear development program.

"But the position of Chinese Government is very clear. We do not hope to see any nuclear weapons on the Korean peninsula," Qian said.

He said Beijing hoped to see consultations between the parties concerned to turn the Korean peninsula into a nuclear-free zone but opposed a U.S.-proposed multilateral drive to force North Korea to scrap its nuclear program.

In talks with his Japanese counterpart Michio Watanabe on Wednesday, Qian warned that excessive international pressure to force North Korea to scrap its nuclear development program might be counter-productive.

Asked to comment on the U.S. proposal for the use of multilateral diplomacy, Qian said: "I think mainly it should be up to North and South Korea themselves to engage in discussions and try to find solutions when it comes to issues involving the Korean peninsula. Other parties can only render assistance."

Ministry Denies Nuclear Cooperation With Iraq

*CM121113391 Beijing RENMIN RIBAO in Chinese
11 Nov 91 p 1*

[“China Does Not Have Any Nuclear Cooperation With Iraq”]

[Text] A Chinese Foreign Ministry spokesman said here today that "China has no nuclear cooperation with Iraq, nor does it transfer any nuclear materials, nuclear technology or nuclear equipment to Iraq."

The spokesman made the remark when he was asked if China has any nuclear cooperation with Iraq, as Iraq has reportedly been found to be involved in the research on and development of nuclear weapons.

"According to the reports in some foreign press, some Western companies have sold relevant technologies, equipments and materials to Iraq," the spokesman added.

Official on Willingness 'To Consult' on Missiles

*OW1411142891 Tokyo KYODO in English 1412 GMT
14 Nov 91*

[Excerpt] Beijing, Nov. 14 KYODO—China is willing to consult with nations concerned about exports of Chinese missiles, a Foreign Ministry spokesman said Thursday.

The spokesman, whose remarks came a day before U.S. Secretary of State James Baker arrives in Beijing for a three-day visit, said China observes international customs which require extensive consultations on such issues.

The United States has accused China of exporting missiles to Syria and Pakistan and transferring nuclear technology to Iran.

Baker travels to China following his attendance at the Asia-Pacific Economic Cooperation (APEC) meeting in Seoul, which ended Thursday.

Baker is the highest-ranking U.S. Government official to visit China since the military crackdown on pro-democracy demonstrators at Beijing's Tiananmen Square in June 1989. [passage omitted]

JAPAN

Government Welcomes Nuclear-Free Korea Proposal

*OW0811060491 Tokyo KYODO in English 0558 GMT
8 Nov 91*

[Excerpts] Tokyo, Nov. 8 KYODO—Foreign Minister Michio Watanabe on Friday welcomed South Korean President No Tae-u's announced plans earlier in the day for a nuclear-free Korean peninsula. [passage omitted]

Watanabe said Japan demands that North Korea agree unconditionally to accept international inspections of its nuclear facilities and strongly hopes Pyongyang will respond positively to No's proposals.

No said in part that South Korea would use nuclear energy for peaceful purposes only and would not manufacture, possess, store, deploy, or use nuclear weapons.

Japanese officials said Tokyo was informed by Seoul of the initiative on Thursday night, prior to its public announcement in a nationally televised address by No on Friday morning.

NORTH KOREA

PRC Support for Nuclear Proposal Cited

*SK1311051591 Pyongyang KCNA in English
0425 GMT 13 Nov 91*

[“Spokesman of Chinese Foreign Ministry Supports DPRK’s Proposal for Denuclearisation of Korean Peninsula”—KCNA headline]

[Text] Beijing November 11 (KCNA)—According to a report of the Chinese PEOPLE’S DAILY on November 10, a spokesman of the Chinese Foreign Ministry, answering a question of a reporter last Saturday as to what he thought about No Tae-u’s “denuclearisation declaration” dated November 8, said:

The Democratic People’s Republic of Korea put forward a proposal to make the Korean peninsula a nuclear-free zone some time ago. China supports this proposal and all steps which will give practical help in carrying it into effect. Because this will be helpful toward peace and stability of the Korean peninsula.

SOUTH KOREA

‘Source’ Discusses U.S. Pullout of Nuclear Arms

*SK1311041291 Seoul CHOSON ILBO in Korean
9 Nov 91 p 1*

[Text] A highly-placed government source said on 8 November that the ROK and the United States have agreed to start withdrawing tactical nuclear weapons at the disposal of U.S. forces stationed in Korea before the end of the year.

He said: I understand that the two countries have not yet decided when to complete the withdrawal of the tactical nuclear weapons. I believe that U.S. Secretary of Defense Cheney, who is scheduled to come to Seoul in November to attend the annual ROK-U.S. security consultative meeting, and ROK Defense Minister Yi Chong-ku will discuss this question and make a decision.

The government source also said: Since the two countries are of the same opinion that the withdrawal of U.S. tactical nuclear weapons should be completed at an early date, it will not take a very long time to complete the withdrawal. It is highly likely that the withdrawal could be completed by next spring at the latest.

Apparently, the first of the U.S. tactical nuclear weapons were brought into Korea in 1958, and their withdrawal will be the first in 33 years.

Meanwhile, a high-ranking government official has confirmed that the tactical nuclear weapons deployed by U.S. forces stationed in Korea will be withdrawn at the earliest possible date. A procedure will be set up to verify when the withdrawal is completed.

The official stressed: Since most of the U.S. tactical nuclear weapons are expected to be destroyed when they are pulled out of Korea and taken to the continental United States, there is no possibility of their redeployment on our territory after the withdrawal. The passage of aircraft and vessels carrying nuclear weapons through our territorial air space and waters is not a violation of our nonnuclear policy because it is guaranteed by a system called (right of harmless flight) under international law.

He continued: One of the five points in the nonnuclear declaration states that our government will not store or deploy nuclear weapons; this means that it will not introduce nuclear weapons into its territory. So, the passage and entering of nuclear-laden aircraft into our territory is a right guaranteed in the ROK-U.S. Mutual Defense Treaty. Moreover, it is an issue to be discussed and decided among sovereign countries. Therefore, it does encroach upon the nonnuclear spirit.

Meantime, the government has stated: North Korea is now producing and storing a large quantity of poison gas—blister, nerve, blood, and tear—while breeding and producing a large quantity of biological weapons—cholera, pest, anthrax, and leptospira germs that can cause epidemic diseases. North Korea is believed to be capable of producing about 4,500 tons of chemical weapons a year and has a storage of about 1,500 tons at the moment.

The government continued: North Korea has concentrated efforts on developing and producing chemical weapons since the early sixties when it began building research facilities for producing chemical and biological weapons. North Korean army units down to regiment-level have established chemical platoons and have been conducting offensive exercises with chemical weapons.

Plan To Stop DPRK Nuclear Efforts Viewed

*SK1811105691 Seoul KYONGHYANG SINMUN
in Korean 17 Nov 91 p 1*

[Text] It was learned on 16 November that the ROK and the United States have had close consultations to map out a plan to stop North Korea's nuclear development through the United Nations. They have tentatively decided to present a resolution on the forcible nuclear inspection of North Korea to the UN Security Council.

A high-ranking ROK Government official said: "Since U.S. President Bush declared the nuclear arms reduction in September, the ROK and U.S. Governments have had official and unofficial consultations on stopping North Korea's nuclear development." He also said: "Analyzing available data, the two countries have concluded that North Korea's acquisition of capabilities to build nuclear weapons is imminent."

This official also said: "Before trying to solve the nuclear inspection problem through the United Nations, the ROK and the United States will try diplomatic efforts to ensure satisfactory results during the December 1991 and February 1992 International Atomic Energy Agency [IAEA] Board of Directors meeting, which will discuss North Korea's subscription to the nuclear safeguards accord and ways to forcibly inspect North Korea's nuclear facilities."

This official also said that if North Korea rejects the international community's requests despite the IAEA's decision, the ROK and the United States will have no alternative but to subject North Korea to nuclear inspection through the United Nations, which can take forcible disciplinary action.

This official also said: "The ROK and the United States have been examining a plan to see how North Korea will respond to the resolution—which will be adopted at the February 1992 IAEA Board of Governors meeting—and to present a resolution to the UN General Assembly in March 1992 in the name of the IAEA to urge North Korea to accept nuclear inspection."

It was learned that in preparation for the possibility that North Korea rejects the UN General Assembly resolution urging it to accept nuclear inspection, the ROK and the United States have also been examining a plan composed of three stages that include sending a UN inspection team and an economic blockade (paramilitary disciplinary action).

The government official said: "The ROK and the United States preclude any immediate military action, at least for now, based upon the principle that they will try diplomatic and political efforts to get North Korea to accept nuclear inspection. These efforts include multilateral pressure and persuasion."

Defector on North's Hidden Nuclear Facilities

*SK0711001491 Seoul THE KOREA HERALD
in English 7 Nov 91 pp 1, 2*

[By staff reporter Kim Hye-won]

[Text] North Korea, if driven into a corner, may open to international inspection of its nuclear plants in Yongbyon, north of Pyongyang, but would never give up the underground nuclear installations in Pakchon, says Ko Yong-hwan, a former North Korean diplomat who has recently defected to South Korea.

He says the underground nuclear facilities in Pakchon, west of Yongbyon, have been built with North Korean technology unlike the Yongbyon plants that used much of Soviet technology. North Korea has a uranium mine in Pyongsan, Hwanghae-do, and is planning to build an atomic power plant in Sinpo, Hamgyongnam-do, according to Ko.

Ko, who often served as French-language interpreter for North Korean leader Kim Il-song, says the North Korean leadership seems determined to develop nuclear weapons as a means of preserving its system.

"Their determination seemed very firm. They apparently view nuclear capability as a last resort for preserving their system," says Ko, who is said to have been a close aide to North Korean Foreign Minister Kim Yong-sam. He was chancellor at the North Korean Embassy in the Congo until he left the post to defect to the South last March.

Ko sees no easy solutions to the North Korean nuclear question. In particular, he warns against any preemptive military attack on their nuclear facilities.

"In that case, the whole Korean Peninsula would be reduced to ashes. I'm afraid that such actions would only prompt Kim Chong-il to start a war with the South", he says. Kim, 49, is the eldest son and heir-apparent of North Korean President Kim Il-song.

Ko also doubts whether the Pakchon nuclear facilities could be destroyed by air attacks. North Koreans, he says, have built most other military facilities underground out of their fear of air attacks from the United States, from which they suffered a lot during the Korean War (1950-53).

"One hundred percent of the military facilities were built underground, even factories manufacturing uniforms and shoes for soldiers. If you take this into account, you cannot imagine North Koreans building plants for producing sophisticated strategic weapons on the ground," he says.

Ko is also doubtful whether nuclear inspectors sent by the International Atomic Energy Agency (IAEA) could find the hidden nuclear facilities even if Pyongyang accepts the inspection.

Most nuclear facilities are unknown to the North Korean public, even to some government ministers and vice ministers, he says. He himself does not have much knowledge about the Pakchon facilities, which are believed to have been built since the 1960s, he says, although he heard about Yongbyon from his brother who is an engineer working on the production of rockets for military use.

"Thousands of inspectors may not easily find these underground facilities in North Korea even when North Korea accepts international inspection," Ko warns.

The North Korean defector first mentioned the Pakchon nuclear facilities during his first news conference in Seoul in September. A Japanese scholar recently said he confirmed the existence of the facilities by reading satellite photos of the area.

Ko says if North Korea produces nuclear weapons, it would be in plants in Pakchon, not in Yongbyon:

Western specialists predict that North Korea will be able to produce nuclear warheads within a few years with the facilities in Yongbyon.

Satellite photos show that North Koreans are building nuclear processing facilities at the Yongbyon complex, where two nuclear reactors are located.

North Korea signed the Nuclear Nonproliferation Treaty (NPT) in 1985, but has refused to sign a nuclear safeguards accord with the IAEA in order to avoid international inspection of its nuclear facilities. Every NPT signatory is required to sign the accord.

North Korea has called for withdrawal of alleged U.S. nuclear weapons in South Korea as a precondition.

Since U.S. President George Bush's announcement of removal of all U.S. tactical nuclear weapons from the world, however, Pyongyang has come up with a new condition and demanded that Seoul give up U.S. nuclear umbrella protection.

"In my view, the North Koreans would full use the issue as a trump card in negotiation on diplomatic ties with Japan and the United States. When they judge that they can no longer endure international pressure, they may open the Yongbyon facilities but they would never give up other facilities," Ko says.

He notes that China has been pressuring North Korea to give up its nuclear weapons development. "Who would want to see others, however close they may be, possess guns?" he says.

Ko says the North Korean leadership started to realize that they could not beat the South in the conventional arms race in the mid-1980s, and has put stress on the making of nuclear weapons.

Defector on Aid to North's Nuclear Program

SK0811045991 Seoul *THE KOREA TIMES* in English
8 Nov 91 p 2

[Excerpt] A North Korean, who defected to the South last month, has said even ordinary people know about the building in Yongbyon, about 90 kilometers north of Pyongyang, of nuclear plants which Western intelligence officers suspect include nuclear waste-reprocessing facilities.

In a press conference arranged by the Agency for National Security Planning at a downtown Seoul hotel, Kim Yong, 33, said he has heard that people in Chagang-to worry over the side effects of the nuclear power plants on their fish catches and the environment.

"Tens of Soviet experts have given technical advice for the construction of the nuclear installations. I heard they had gone on strike, asking for payment for their services in U.S. dollars instead of the ruble. They later resumed work as the North accepted their demand.

"I think nuclear weapons could be produced in Chagang-to. North Koreans think that a chemical doctor, Yi Sun-ki, who disappeared from public after his pivotal role in the construction of a large-scale chemical fiber factory, is engaged in the building of the nuclear power plants," he said.

Kim, who was commissioned to earn foreign currency at the Paektusan Architecture Institute, fled to the South on Oct. 17 through a European country while on the Soviet Sakhalin islands to examine samples of furniture to be exhibited in Pyongyang next year.

He said Kim Chong-il had instructed him in a personal letter to prepare for a furniture show in commemoration of the 80th birthday of his father, Kim Il-song, and his 50th birthday. Paektusan, named after the highest mountain of Paektu, was charged with designing and building villas and other structures for the all-mighty Kim family.

Grave fear of punishment for his failure to arrange the exhibition due to the shortage of hard currency drove him to defect to South Korea, he said. [passage omitted]

Declaration Aims To Halt North's Nuclear Program

SK1011061691 Seoul *THE KOREA HERALD*
in English 9 Nov 91 p 2

[Excerpt] South Korea will launch an intensive international campaign to stop North Korea's nuclear weapons development program while designating it as the first diplomatic goal, Vice Foreign Minister Yu Chong-ha said yesterday.

He said Seoul gave China, the Soviet Union and the United Nations as well as its allies including Japan prior notification of President No Tae-u's declaration.

Yu said the declaration is aimed at halting North Korea's construction of nuclear fuel-reprocessing plants.

There are practical difficulties in getting North Korea to abandon its reprocessing facilities by the Nuclear Non-proliferation Treaty (NPT) and other legal means, he said.

By pledging that it would not own nuclear reprocessing or enriching facilities, Seoul wants to remove any North Korean excuse for acquiring these facilities, the vice foreign minister said.

It is apparent that North Korea is building the reprocessing plants to develop nuclear weapons, Yu said. North Korea has only two research reactors, not for atomic power generation, he said.

No's declaration means Seoul's abandonment of U.S. policy of neither confirming nor denying nuclear weapons presence in South Korea, he said.

But he said the government would not reveal when the policy will stop being applied here.

Yu did not rule out the possibility that nuclear weapons would be reintroduced into South Korea in case of emergency but said the reintroduction would not be extended to redeployment of nuclear weapons here.

He also did not make clear whether the President's declaration ruled out the possibility of passage of aircraft or vessels carrying nuclear weapons.

The vice minister expected North Korea to try to make much use of the nuclear issue in diplomatic negotiations with other countries before it finally accepts international inspection of its nuclear facilities.

"I expect North Koreans to accept international inspection ultimately. But I think it is wrong to use the nuclear issue in diplomatic dealings. We want to remove with the new declaration, the excuse for such North Korean behavior," he said. [passage omitted]

HUNGARY

Government Tightens Chemical Arms Trade Controls

*LD141123391 Budapest MTI in English 1726 GMT
14 Nov 91*

[Text] Budapest, November 14 (MTI)—The Hungarian Government has recently strengthened controls on the trade of chemical and biological weapons and the materials and equipment required to make them, Janos Csendes, head of department at the Ministry of International Economic Relations (MIER), told MTI today. Csendes pointed out that an MIER licence was previously required for the trade of these items, but that controls had now been tightened up in line with COCOM regulations and extended to chemicals that are used in agriculture but which could become basic materials of biological weapons. He went on to stress that, although Hungary does not make or store chemical or biological weapons, it does have a role to play in the worldwide control system aimed at preventing the illicit

trade of these kinds of weapon. Controls on the trade of nuclear equipment are also to be tightened for the same reason.

YUGOSLAVIA

Consortium Agrees To Build USSR Chemical Plant

*LD1211123991 Belgrade TANJUG in English
1016 GMT 12 Nov 91*

[Text] Belgrade, Nov 12 (TANJUG)—A consortium of Yugoslav firms, comprising Prva Iskra, Interexport and Energoprojekt, has signed in Baric near Belgrade a contract with the Soviet Tehmasinexport for building, on a turn-key basis, a factory in the Soviet Union for the production of lab, an alkaline commodity indispensable in the manufacture of detergents.

The contract is valued at 147 million dollars.

Prva Iskra of Baric has recently inaugurated a plant for the manufacture of lab. The plant has an annual rated output of 50 thousand tons, valued at 50 million dollars.

ARGENTINA

Nuclear Cooperation Accord Signed With Uruguay

PY1611130091 Buenos Aires TELAM in Spanish
0156 GMT 16 Nov 91

[Text] Buenos Aires, 15 Nov (TELAM)—Argentina and Uruguay have signed a cooperation agreement on the peaceful uses of nuclear energy, which refers basically to the training of personnel.

The agreement was signed by Manuel Mondino, head of the Argentine National Atomic Energy Commission, and by Julio Riet Alvariza, head of the Uruguayan National Atomic Energy Commission. Mondino and Riet also agreed to promote that sector within the Mercosur [Common Market of the South] framework.

It was noted that the agreement includes fields such as nuclear materiel, thermohydraulics, radiological protection, medical applications, and the application of nuclear analytical techniques in the study of the environment and ionic radiation.

BRAZIL

Budget for Angra II To Increase in 1992

92WP0057A Sao Paulo GAZETA MERCANTIL
in Portuguese 22 Oct 91 p 15

[Article by Sao Paulo correspondent Luis Leonel]

[Text] The 1992 budget for the Angra II will probably be increased from \$50 million to \$120 million, reported National Energy Secretary Armando Araujo, who said the \$50 million figure that appears in the 1992 appropriations for Angra II was the result of a "technical error." "That figure is now being revised," he said.

The forecast of a budget of only \$50 million for Angra II for next year had led to an outcry from the nuclear power community. "The whole thing will come to a halt," said one source in the sector. "The few people still working on the project would have to be laid off." The nuclear power industry organized a series of lectures, to be held today at the headquarters of the Commercial Association of Rio de Janeiro, in favor of continuing the Angra II construction work. "We cannot allow the work to stop," said Luiz Hiroshi Sakamoto, president of the Brazilian Nuclear Energy Association (ABEN).

Angra II was designed to generate 1.3 thousand megawatts (MW). It is estimated that 65 percent of the work has been completed; therefore 35 percent remains to be done. What remains, basically, is the assembly of the equipment, since the buildings themselves are nearly ready and 90 percent of the equipment has been delivered and been put in storage.

The Angra II project as a whole has already eaten up \$3.6 billion in investment (including direct investment and financing charges), with \$1.5 billion remaining to be

invested in order to finish the project. Those who advocate continuing the project usually forget how much has already been invested and advance as their decisive argument the ratio between the cost of completing the work and the volume of energy to be generated. That ratio would result in a price of \$1.15 million per MW generated. "Any hydroelectric project would cost much more than that today," Sakamoto said.

Whether or not it is feasible to increase the Angra II budget depends on what happens to electricity rates. One forecast by the economy and infrastructure ministries suggests that rates will climb to \$67 per MWh by the end of next year. "Unless rates rise, the appropriation may exist on paper, but there would be no money to implement it," said Araujo, summing up the situation.

Misinterpretation

He explained that Minister of the Infrastructure Joao Santana had been misinterpreted when he said two weeks ago that the government would not respect the parameter of \$67 per MWh fixed by the World Bank. "What Santana meant to say is that the \$67 per MWh would be the target, not because the World Bank requires it but because the Brazilian situation requires it," Araujo explained. "But that goal still stands."

ACRJ Urges Completion of Angra II, III

92WP0057B Sao Paulo GAZETA MERCANTIL
in Portuguese 23 Oct 91 p 16

[Article by Rio correspondent Cristina Borges]

[Text] Completion of the Angra II nuclear power plant is estimated to cost, in May 1990 prices, \$1.5 billion over the next six years. Outlays of \$285 million would be required during the first of those years—\$103 million in foreign currency and \$182 million in Brazilian currency. These figures were submitted by an expert from Furnas Electric Power Plants, Inc. during a seminar entitled "Do it Now" sponsored by the Commercial Association of Rio de Janeiro (ACRJ) to urge the completion of both the Angra II and III nuclear power plants.

ACRJ council member Jair Marques de Souza, who is also an expert in nuclear power, pointed out in his lecture that Rio de Janeiro State now buys 60 percent of the electricity it consumes from other states, and that it must reduce this high level of dependency. "The natural way to do this would be to complete the two nuclear plants, specifically those at Angra," he said, noting that Angra 1 already provides the Rio area with 15 percent of its electric power needs.

Seminar participants produced data to show that continuing the work at Angra II would necessitate a revision of its budget, which initially called for funding of only \$50 million for 1992. National Energy Secretary Armando Araujo has already said this figure will be raised to \$120 million, which is still not enough to

permit the work to proceed. Foreign funds, Russo said, are already assured by financing from the German equipment suppliers.

World Market

Jair Marques de Souza also spoke about the worldwide trends in nuclear energy since it was first used commercially to produce electricity 30 years ago. Of the total volume of electrical energy produced worldwide in 1990, 17 percent is of nuclear origin, close to the 19 percent generated by hydroelectric means. Electricity generated by coal still leads, at 40 percent.

France ranks first in producing electricity by nuclear means. Of the 400 million gigawatt hours (GWh) produced in 1990, 74.5 percent, or 297.7 million GWh, came from nuclear-powered generating plants. The representative of Electricite de France (a French government corporation), Patrick Druart, revealed during the seminar that exports of nuclear energy to neighboring countries yielded foreign exchange receipts of \$2 billion last year.

In his talk, the representative of the Argentine government corporation Nuclar S.A., Oscar Quihillat, said that completing the work on his country's Atucha II plant presents the same problems as Angra II, i.e., a shortage of domestic funding. He added that the nuclear program is vital to Argentina and still has the backing of President Carlos Menem, who has given assurances that the funds will be made available.

Angra II Funding Inadequate To Meet Timetable

92SM0085Y Sao Paulo GAZETA MERCANTIL
in Portuguese 29 Oct 91 p 7

[Article by Rio correspondent Cesar Faccioli]

[Text] Potential confirmation by Congress of the \$50 million increase—to \$120 million—of the budget appropriation for construction of Angra II would still provide insufficient funding to enable work to proceed at the forecast pace for completion of the plant, which is one of the most important components of the Brazil-Germany Nuclear Accord. In order for Brazil to receive \$102 million in international funding and for the deadlines in the schedule to be met, the Brazilian contribution would have to be \$182 million. Over the six-year period beginning in 1992, investments will have to total \$1.5 billion. So far, over the 16 years of the life of the accord, \$2.9 billion have been invested.

The twin power plants Angra II and Angra II, rated at 1.3 MW/h, were not completed within the deadline and are now at different stages of completion. Angra II, on which the most progress has been made, is 90 percent complete in terms of structure, and 65 percent in terms of equipment installation. Only the foundations have been built for Angra III, and only 30 percent of its equipment has been purchased.

The only nuclear power plant now functioning in Brazil is Angra I, and it has been experiencing frequent interruptions owing to operating problems and legal questions relating to its safety systems. It supplies 630 MW/h, equivalent to 20 percent of the electricity consumed by Rio de Janeiro State where it is situated, and is not part of the agreement with Germany. Its technology, now obsolete, was transferred by Westinghouse.

A product of the independent foreign policy (the "responsible pragmatism") of Azeredo da Silva and [former President] Ernesto Geisel, and of Social Democratic Chancellor Willy Brandt's North-South dialogue, the nuclear accord caused friction with the United States. The wording in its text restricting it to peaceful objectives and the clauses providing for supervision by the International Atomic Energy Agency (IAEA) did not dispel the U.S. impression that the purpose built into the control of the complete uranium cycle was the building of a simpler atomic device, such as the A-bomb. Brazil's refusal to sign the Nuclear Nonproliferation Treaty on the grounds that, in practice, it would restrict even peaceful uses, exacerbated the conflicts.

Although the responsibility for building and operating the power plants has passed from the now-extinct Nuclebras to Furnas Electric Power Plants Inc., Brazil has not abdicated control of the full uranium enrichment cycle. Created in 1988, two years prior to the expiration of the original agreement, INB—Brazilian Nuclear Industries, Inc. has subsidiaries for each of the phases in the process and usually operates well below its rated capacity, since its facilities were designed to meet the needs of a minimum of three operating plants. This is why the mining and industrial complex at Pocos de Caldas in Minas Gerais State has undertaken only the initial stages of its operations—the limit of its rated capacity of 500 tons/year of uranium concentrate, U 308, the yellow cake that Brazil was accused of supplying to Iran.

Government Intends To Only Complete Angra II

92SM0085W Sao Paulo GAZETA MERCANTIL
in Portuguese 29 Oct 91 p 7

[Article by Brasilia correspondent Maria Helena Tachinardi]

[Text] The Brazilian government has now decided that the nuclear agreement with Germany will not go beyond the Angra II power plant. As for Angra III, which would cost nearly \$2 billion to build, the policy is to help it lapse into "ostracism," said a reliable Itamaraty source.

According to reports from the Ministry of Foreign Affairs, 63 percent of the work on Angra II has already been done, at a cost of \$4.1 billion. To complete the plant, Brazil will have to obtain funding [preceding word in English] of \$1.5 billion. That is the main problem, since, as Minister Joao Santana told this newspaper, the Ministry of Infrastructure—which is responsible for the construction work—does not know where it would get the money.

Planalto Palace Secretary for Strategic Affairs Pedro Paulo Leoni Ramos confirmed to this newspaper that Brazil intends to only complete Angra II, which is within the country's energy matrix. Foreign Minister Francisco Rezek added that the least costly option would be to finish Angra II, since it has already cost Brazil's coffers so much. That is also the view of the German government. Official sources from that country said it would make more sense to complete Angra II than to start building a 1,300 MW hydroelectric plant.

Angra II is expected to be completed six years from now, if Brazil finds the resources. Work has been virtually at a standstill since 1989, when the joint Brazil-Germany scientific and technological commission last met. The subject was discussed on that occasion and the administration outlined the financial problems it faces in completing the two power plants. Brazil also told the German government of the changes introduced by the 1988 Constitution, which sanctions peaceful use of nuclear energy.

The subject was discussed again last year, on the occasion of the renewal of the nuclear accord. Before it expired on 2 November 1990 the two countries met to renegotiate its extension. After much debate in Germany, provoked mainly by the Green Party and by the ecological movements, the Congress decided to renew the agreement for five more years. According to Rezek, it would take that long for Brazil to finish Angra II.

A German government source, a member of Chancellor Helmut Kohl's committee, told this newspaper that his country understands the problems the Brazilians are having in completing the two nuclear power plants. "The Collor administration has to reduce public spending," he said.

Furnas Unable To Maintain Angra II, III
92SM0085X Sao Paulo GAZETA MERCANTIL
in Portuguese 29 Oct 91 p 7

[Article by Rio correspondent Cristina Borges]

[Text] Furnas Electric Power Plants, Inc., which resumed responsibility for building Angra II and III at the end of 1988, can no longer support the two units financially. They have so far eaten up the equivalent of \$300 million from its budget, according to Furnas's coordinator-general of thermonuclear production, Sergio Guimaraes.

The federal government budget submitted to Congress lists an appropriation of \$120 million, which includes the \$50 million portion from the German partners. Guimaraes expressed his concern about obtaining the remaining \$70 million, a sum for which the Brazilian government is responsible.

Release of a larger volume of funding for resumption of work on Angra II beginning in 1992, plus the five-year deadline for its completion, will make Angra II a 21-year project. Even under those adverse conditions, Guimaraes appeared to favor continuation of the work, since the \$1.5 billion in investment that is still needed is less than what would be required to begin a new project, he said. Eletrobras's energy plan indicates that Angra II will have to enter the system in 1996, when Brazil will have resumed its economic development.

The nuclear agreement between Brazil and Germany calls for construction of nuclear power plants, along with transfer of technology that would give Brazil the ability to do major engineering work in the nuclear power sector. Under that agreement, Furnas signed contracts in 1976 with the German firm of KWU covering construction of Angra II and III, using German equipment, services, and guarantees. In connection with that contract, KWU signed another one with Nucleon [Nuclebras Engineering, Inc.], which gave it a 25 percent share in that state enterprise and included a commitment to transfer technology. Those contracts assumed that Angra II and III would be ready in 1982 and 1983.

In October 1980, Decree-Law 1810 transferred the Furnas contracts to Nucon [Nuclebras Nuclear Plant Construction, Inc.], a subsidiary of Nuclebras [Brazilian Nuclear Corporation, Inc.] that was created to build the power plants, on which construction had already been delayed repeatedly for lack of Brazilian capital. With the abolition of Nuclebras at the end of 1988, the task of administering Angra II and III reverted to Furnas.

The INB—Brazilian Nuclear Industries, the successor to Nuclebras—is now responsible only for the nuclear fuel cycle, through its subsidiaries Uranium do Brasil S.A. and Nuclebras Isotope Enrichment S.A., or Nuclei. Production of nuclear fuel at the factory in Resende, Rio de Janeiro State is INB's only source of income. Sales amounted to \$25 million because of the recharging of Angra I, reports Roberto Esteves, an advisor to Helcio Modesto da Costa, the president of the state corporation. The net earnings of the state corporation equal half that total, after deduction of the expenses incurred in having the uranium enriched outside Brazil by the three-nation firm of Urenco, which has British, German, and Dutch capital.

The Resende factory has capacity to produce fuel corresponding to 100 tons per year of uranium, enough to supply Angra I, II, and III. It has enormous idle capacity, since Angra I consumes only 15 tons per year. "Cancellation of Angra II will make INB inviable," Esteves acknowledged. With double the power of Angra I, Angra II would enable INB to sell \$75 million per year. The state corporation has been operating in the red and receiving supplementary appropriations from the federal government budget.

AFGHANISTAN

USSR Withdrawing Missile Crews

BK2011084091 Hong Kong AFP in English 0811 GMT 20 Nov 91

[Excerpt] Islamabad, Nov 20 (AFP)—The Soviet Union has started pulling out its military personnel operating Scud missiles against mujahedin rebels in Afghanistan, a top resistance leader here said Wednesday.

Moscow has never admitted mujahedin allegations that hundreds of Soviet officers and advisers were stationed in Kabul and Jalalabad, operating and guiding the Afghan Army in the launch of surface to surface long-range missile battery against the resistance gunnery.

“According to information received today, the Soviet Union has started withdrawing its Scud missile operators,” Burhanuddin Rabbani told a news conference on his return from Moscow where he led a resistance delegation at last week’s talks with Soviet and Russian officials.

The Soviet Union officially pulled all its forces out of Afghanistan in 1989, nearly 10 years after invading the country in the wake of factional fighting in the communist government in Kabul.

Rabbani said a joint Soviet-mujahedin commission will meet in Pakistan soon to finalise arrangements for an interim Islamic government in Afghanistan as agreed by the two sides in Moscow. [passage omitted]

INDIA

State May Sell Nuclear Research Reactor to Iran

BK0911123891 Hong Kong AFP in English 1211 GMT 9 Nov 91

[Text] New Delhi, Nov 9 (AFP)—India may sell a small nuclear research reactor to Iran but negotiations have not yet been finalised, the Bombay-based INDEPENDENT newspaper said Saturday.

Indian Foreign Office officials were not immediately available to verify or comment on the report which came on the eve of a scheduled visit to Tehran by Indian Foreign Minister Madhav Singh Solanki.

The INDEPENDENT, which cited “information available” in India, said that should the sale of the five megawatt [MW] reactor go ahead, it was likely to be under the safeguards of the International Atomic Energy Agency (IAEA).

The safeguards would preclude Iran from secretly storing plutonium for any nuclear weapons program, the INDEPENDENT said, adding that the reactor which India had agreed to sell could produce plutonium.

The newspaper said the Iranian Government had wanted to buy a larger 10 megawatt research reactor, but that the Indian Government was “keen on” the smaller five MW one, which would cost some 50 million U.S. dollars.

Negotiations for the sale were conducted when a team of the Iranian Atomic Energy Agency officials visited India in February of this year, and the issue was further discussed when Deputy Iranian Foreign Minister Alla’eddin Borujerdi visited Delhi at the beginning of October, the paper said.

“The export agreement will be within the framework of a bilateral nuclear agreement currently being discussed by the two countries,” the INDEPENDENT said.

Minister Solanki was scheduled to leave Delhi Sunday for a three day visit to Iran to attend the fifth session of the Indo-Iranian Joint Commission which deals with bilateral ties.

Plans To Sell Iran Nuclear Reactor Denied

OW1711074191 Beijing XINHUA in English 0728 GMT 17 Nov 91

[Text] New Delhi, November 17 (XINHUA)—Indian official sources denied here on Saturday Washington-based press reports that India was planning a reactor sale to Iran.

An Indian external affairs spokesman, however, refused to comment on the report.

The spokesman was quoted by local press today as saying that India’s record on proliferation of nuclear technology was “impeccable”.

The Bush Administration had taken up the issue with Indian Government, strongly urging India and other potential nuclear supplier countries to avoid any form of nuclear cooperation with Iran, even under safeguards, the reports added.

Official Defends Right To Sell Reactor to Iran

BK1911093591 Hong Kong AFP in English 0857 GMT 19 Nov 91

[Text] New Delhi, Nov 19 (AFP)—A top Indian civil servant has defended India’s right to sell an atomic research reactor to Iran, saying the United States had already supplied one to Tehran which was still working.

P.K. Iyengar, the chairman of India’s Atomic Energy Commission, told THE HINDUSTAN TIMES in an interview published here Tuesday that should Iran get a 10-megawatt reactor from India the deal would come under the safeguards agreement with the International Energy Commission.

Iyengar’s comments came two days after India’s ambassador to Washington was called to the State Department there to discuss reports that the sale of an Indian research reactor was under negotiation with Iran.

A State Department spokesman said after the meeting that he "understood" no final decision had been made on the sale, which Washington wants to stop because of what it says is the possibility of Iran "misusing" civilian nuclear materials.

"Perhaps the Western countries do not want us to get into high technology exports ... the Americans had already supplied a five-megawatt reactor to Iran which is still working," Iyengar said in the interview, without specifying the date of the U.S. sale.

"Our offer to Iran is exactly like the nuclear reactors set up by Argentina in Algeria and Peru and the recent offer it has made to Turkey... perhaps only the white man has the right to sell nuclear reactors," he added.

India is not entering into secret deals but following international safeguards, he said.

India exploded a nuclear device in 1974 but says it is committed to the peaceful use of atomic energy.

Envoy: Libya Sought Indian Nuclear Technology

*92WP0062A Bombay THE TIMES OF INDIA
in English 11 Oct 91 p 24*

[Article by Gautam Adhikari: "Libya Had Sought N-Tech From India"]

[Text] Washington, Oct 10—According to Mr. Abid Hussain, India's ambassador to the U.S., Libya sought to acquire nuclear weapons technology from India in the 1970s but its request was turned down by the Indian government.

A remark, made almost in passing by the Indian ambassador yesterday, at a morning news conference at the national press club, drew immediate attention in the media in this country, which is sensitive to news about nuclear weapons proliferation. The ambassador was speaking about India's economic reforms to a gathering of American and Indian correspondents.

In a question and answer session, while replying to a question from an American journalist about India's attitude towards nuclear weapons proliferation, Mr. Hussain said: "We have always believed that the world should be free of nuclear arms."

Then, by way of illustrating India's determination not to encourage the spread of nuclear arms around the world, he said Col. Mu'ammar al-Qadhdhafi had once sought nuclear weapons technology from India against payment of a sum equivalent to India's foreign debt at the time. But, the government, headed then by Mr. Morarji Desai, refused.

India's debt at the time may have been in the region of \$15 or \$16 billion. India, however, declined the Colonel's offer to sell him technology which had enabled India to explode a nuclear device in 1974, Mr. Hussain said.

Pakistan Capable of Producing 10 Nuclear Bombs

*BK1011035691 Delhi All India Radio Network
in English 0245 GMT 10 Nov 91*

[Text] Pakistan is reported to have acquired enough triton capable of producing 10 nuclear bombs. This was stated by the defense minister's scientific adviser and defense research and development organization chief, Dr. B.H. Arunachalam. Speaking at the economic editors' conference in New Delhi yesterday, Dr. Arunachalam said that this estimate is based on published material and other sources.

Delhi Opposes Pakistan's Nuclear-Free Proposal

*BK1211082691 Delhi All India Radio Network
in English 0730 GMT 12 Nov 91*

[Text] India has opposed the Pakistani proposal to make South Asia a nuclear-free zone. The proposal cosponsored by Bangladesh secured 104 votes in favor and three against in the UN General Assembly's Political and Security Committee yesterday.

Explaining India's principal opposition to the proposal, the Indian ambassador to the United Nations, Mr. Prakash Shah, said the sponsors of the move did not hold prior consultations with the countries in the region, which is essential for its success. He said nuclear weapons existed in the geographical region of India's security concerned. In a significant development, the Soviet Union, which has all along supported India on the issue, voted in favor of the Pakistani proposal.

Pakistani Nuclear-Free Bid Said 'Not Serious'

*BK1411035691 Delhi All India Radio Network
in English 0245 GMT 14 Nov 91*

[Text] India has described Pakistan's motion on making South Asia a nuclear-weapon-free zone as ritualistic and not being serious. A spokesman of the External Affairs Ministry said in New Delhi yesterday that the motion voted in the UN General Assembly's Political and Security Committee on Monday does not meet the criterion of prior consultations among the nations of the region. Asked about the Soviet vote in favor of the motion, he said the perception of the Soviet Union has in the recent past changed on a variety of issues.

BJP Official Wants Indian Nuclear Capability

*BK1011161791 Delhi All India Radio Network
in English 1530 GMT 10 Nov 91*

[Text] The BJP [Bharatiya Janata Party] vice president, Mr. Krishna Lal Sharma, says India should acquire nuclear capability in view of Pakistan's design to make nuclear bombs. In a statement issued in New Delhi today, Mr. Sharma referred to reports that Pakistan has smuggled enough triton capable of producing 10 nuclear bombs and said India cannot afford to overlook this serious development. The BJP leader also called for chalking out a comprehensive plan to combat Pakistani

propaganda against India at international level. He said it is imperative to tell Pakistan that India would not tolerate any further its aiding and abetting the terrorists in Punjab and Kashmir.

Official on Narora Atomic Power Plant Features

*BK0811164691 Delhi THE HINDUSTAN TIMES
in English 25 Oct 91 pp 1, 24*

[By Rajendra Prabhu]

[Text] Narora, Oct. 24—Atomic Energy Commission Chairman Dr P.K. Iyengar claimed here today that the Narora Atomic Power Plant [NAPP] is safe against earthquakes as "nothing at all happened" during the recent earthquake to it.

Speaking to media people after the second 220 MW unit of the plant became critical at 4.40 a.m. here today, Dr Iyengar said that the plant had been designed to withstand an acceleration of 0.3 G [a G is equal to force caused by acceleration of 25 feet per second] while the recent earthquake had an intensity of only 0.025, he pointed out. The plant would trip at 0.1 G so that there was no chance of the plant continuing to function in case there was high seismic activity.

The second unit in which the uranium fuel element started chain reaction thereby attaining criticality will take a few more days to start generating power. Dr Iyengar hoped that within two months the fire generation would be stabilised and the power connected to the grid. The first 220 MW unit is already generating 125 MM power for the last two years and is likely to be given permission to go to full power generation of 220 MW.

Dr Iyengar pointed that the Moradabad fault nearby was in east-west direction while the intensity of any earthquake was likely to be in the north-south direction. This itself provided protection to the plant. The design of the plant had taken into account all seismic data collected from up to 300 KM around the plant. The Department of Atomic Energy itself was continuously monitoring seismic activity in all areas of interest to it. "This plant is the safest nuclear power plant," he said and assured "there will be no Chernobyl here." The Atomic Energy Chairman detailed various safety measures built into the plant and claimed that in the event of any dangers, overheated core of the reactor would be defused within 2.4 seconds by two features, namely shut down through control rods followed by injection of boron-rich water which will absorb the neutrons and stop their reaction in the core. This was in addition to other features like double containment and no contact between radioactive heavy water and the light water used for cooling which is let out. He also said that due to the new design of cooling towers, very little water from Ganga would be drawn for cooling purposes and most of the water would be recycled.

Dr Iyengar refuted the charge that the nuclear power was unsafe and claimed that there was very little radiation

going into the environment from the plant and therefore it posed no danger to any of the villages around or to the workers within the plant. He also said that the Rs [rupees] 650-crore plant was cheaper than thermal power in regard to investment and generation costs.

The second unit of the Narora Atomic Power Plant became critical today, marking another important milestone in India's nuclear power programme.

At full power, it will generate 235 megawatts. Commercial operation is expected to start early next year, Mr S.L. Kati, managing director of the Nuclear Power Corporation, said.

Apart from Mr Kati, Dr P.K. Iyengar, chairman of the Atomic Energy Commission, and other senior officials of the Department of Atomic Energy were present when the reactor became critical at 4.40 a.m. today.

NAPP is a modified version of the power reactors in Kalpakkam near Madras. The Narora design has been standardised and will be adopted from all future reactors. The first unit of NAPP became critical on March 12, 1989 and began commercial production operation in July 1989.

With the commissioning of the second unit at Narora, India's nuclear power capacity rose to 1780 MW. But actual generation is less than 1000 MW since almost all the reactors are operating at less than maximum capacity.

The Narora plant took nearly 12 years to build and costs more than doubled because of the need to erect cooling towers and alter the design to meet earthquake safety standards.

Dr Iyengar told journalists the critical operation went smoothly. Scientific measurements on safety would be taken up in the next few weeks and the plant would be ready for putting electricity in the grid in the next couple of months. Dr Iyengar stressed "nothing happened at all during the earthquake in Almora on Sunday."

"The nuclear reactor will be the safest place to take shelter in a future earthquake," Dr Iyengar said, adding that the recent earthquake has shown the Narora plant "is safe even if there is a stronger earthquake in the future." The reactor will automatically shut down when the ground acceleration is more than 0.1 G, he said. "Fears about the safety of the Narora plant because of its location in a seismic zone have been dispelled," Mr Iyengar stressed.

Dr Iyengar said a lot of efforts have gone into the design of the Narora atomic project and the commissioning of the second unit will "bring soon the much needed relief to the power-hungry Northern grid system in the Western part of Uttar Pradesh." The 440 MW of power coming from the twin reactors in Narora would be shared by the constituent states and territories of the Northern grid region, he added.

The evolution of the Narora design has ensured that the Narora plant is capable of withstanding earthquakes even with epicentres of short distances.

Although the resource crunch had led to the slip-up of the 10,000 MW target, Dr Iyengar said but he hoped the target would be reached by 2002 or 2003 AD. "Even though the Narora plant took long to build, the lessons learnt have strengthened our design capacity and helped to standardise components which are manufactured indigenously." The Narora features two independent mechanisms of shut down and its design has been standardised for future reactors in India.

Six more Narora-type reactors are under construction at Kakarpar, Kaiga in Rajasthan, Mr Kati said.

According to him, the capital cost of NAPP including the interrupt during construction is less than Rs 16,000 per kilowatt, which after devaluation would be about \$650 per KW. The present-day international cost is about \$2,000 per KW.

The two reactors in Narora will burn 80 tonnes of uranium per year and as a by-product will produce 120 kg of plutonium which will be used as fuel in the fast breeder reactor in future.

The commissioning of the latest reactor "marks yet another landmark in the successful indigenisation of the nuclear power programme," Dr Iyengar said.

Nuclear Scientists' Foreign Contracts Restricted

92WP0063A *Bombay THE TIMES OF INDIA*
in English 12 Oct 91 p 5

[Article by Vidyadhar Date: "Tribunal Ruling on N-Scientist"]

[Text] Bombay, Oct 11—Can a top official of India's nuclear establishment enter into a contract with a foreign employer without the government's permission?

No, ruled the Central government administrative tribunal recently.

The case pertains to Mr. K. V. Mahadeva Rao, former director of corporate planning, Nuclear Power Corporation of India and secretary of the Atomic Energy Commission.

He was deputed to the International Atomic Energy Agency (IAEA) of the UN at its headquarters in Vienna in July, 1988, for a three-year term.

Before expiry of the term, he entered into a contract with the IAEA for two years without the concurrence of the government of India.

Mr. U. C. Srivastava, vice-chairman, and Mr. M. Y. Priolkar, member of the tribunal, dismissed Mr. Rao's petition which challenged the government decision.

The government had directed Mr. Rao to return to India at the expiry of his term in Vienna. But he not only did not come back, he also filed an application before the tribunal through his lawyer the day after his three-year contract had ended.

The government argued that since Mr. Rao had held posts of a very sensitive nature in India it would not be proper to allow him to work further for a foreign agency.

Mr. Rao was informed that scientific and technical experts like him who have worked in sensitive areas should come back and serve the government in the interest of "our nuclear programme." It is likely that the IAEA considered it useful to continue with him for dealing with questions regarding the non-proliferation treaty, the government felt.

When Mr. Rao was denied permission to extend his contract, he sought voluntary retirement. This plea, too, was rejected. The government felt that Mr. Rao's refusal to heed pleas to return to India showed his "irresponsibility and tendency to place his interests above those of the country."

In his defence, Mr. Rao pointed out that in the past three officials of the nuclear establishment, Mr. P. R. Dastidar, Mr. K. T. Thomas and Mr. R. D. Ganatra had been allowed voluntary retirement while in UN service.

The government, however, contended that their case was different as they were about to retire in any case. In the case of Mr. Rao, it was pointed out, he was only 51, and had a long time to go for retirement.

Mr. Rao, in turn, argued that Mr. M. R. Srinivasan, a top nuclear scientist, was allowed to retire voluntarily and allowed to continue working with a foreign agency. However, the tribunal felt that on this score Mr. Rao had not produced sufficient testimony.

Mr. Rao joined the Bhabha Atomic Research Centre in 1961.

Government sources said the idea in sending Mr. Rao abroad was to have the benefit of his knowledge for the country on his return to India.

Mr. D. K. Afzalpurkar, additional secretary in the department of atomic energy, said a telegram had been sent by the Nuclear Power Corporation of India urging Mr. Rao to come back to India.

AEC Chief Interviewed on Nuclear Power Progress

92WP0065A *Madras THE HINDU* in English
17 Oct 91 Supplement p 4

[Article by T. S. Subramanian: "Critical Issues in Scaling Up Nuclear Power"]

[Text] While the Atomic Energy Commission is unlikely to achieve its much vaunted target of generating 10,000

MW of nuclear electricity by the turn of the century because of the resource crunch, there is optimism on other fronts where gloom could have easily set in.

The country has at present an installed capacity of 1,465 MW for nuclear power with the two units at Tarapur accounting for 160 MW each, another two reactors at Rajasthan (RAPS) generating 220 MW each, two at Madras Atomic Power Station (MAPS) contributing 235 MW each and one at Narora generating 235 MW.

The second unit at Narora is now all set to attain criticality in a few weeks and Gujarat will soon find a place in the nuclear map when the first unit of the Kakrapar Atomic Power Project will go critical in February, 1992.

500 MW Sets

If one were to include these two units, the Nuclear Power Corporation will be generating 3,110 MW by 1996 with the second unit at Kakrapar, the third and fourth reactors at RAPS and the first and second units at Kaiga in Karnataka going on stream, provided there are no slippages in the current schedule.

In the second half of this decade, the nuclear electricity programme will make big strides when four more units 235 MW each at Kaiga (totally six units here), two units of 500 MW each at Tarapur and four more reactors of 500 MW each at the RAPS will be started up. Six additional units of 500 MW each will come up at sites which have already been selected or yet to be firmed up.

The entire programme will be carried out with the help of indigenously built reactors which will use uranium as fuel and heavy water as coolant and moderator. This would have meant that nuclear power would have contributed 10 per cent of the total electricity generated by 2000 A.D.

Soviet Union's Role

According to the original schedule besides this 10,000 MW, the Soviets would have built, on a turn-key basis, two huge reactors of 1,000 MW capacity each at Koodankulam in Tamil Nadu, which would have been a great boon to South India, strapped for electricity. These reactors will use enriched uranium as fuel and light water as coolant and moderator.

But things are not so hunky-dory as the AEC expected them to be. Realising that it cannot achieve its target with the help of indigenously built reactors alone because Plan allocations are not forthcoming, it has promptly included the two units at Koodankulam in its schedule to reach the target.

However, the disintegration of the Soviet Union has thrown a spanner in the Koodankulam project itself. Earlier, the discussions between India and the Soviet Union on the financial terms of the project had hit some snags.

But, in an interview to THE HINDU on October 1, the Chairman of the Atomic Energy Commission, Dr. P. K. Iyengar, was not unduly worried about the prospect of the Soviet Union pulling out of the Koodankulam project. On the contrary, he said the Soviets had not indicated any problem in constructing the two units there.

"We still have to wait for some time until the Russian changes are settled," he said. "They have not communicated any problem as such about building the reactors," he pointed out. Asked whether the project would go on schedule (the first unit should attain criticality by 1998 and the next two years later), he said he did not know yet.

But Dr. Iyengar firmly discounted reports that the French were waiting to grab the Koodankulam project by the forelock if the Soviets pulled out. "No question of the French coming in. They have not made any offers," he categorically declared.

And in a significant statement, he confidently asserted that India will build its own reactors at Koodankulam if the Soviets pulled out of the project by any chance. "It is supposed to go through with the USSR collaboration. Otherwise, we will have to build it on our own... If we build them, they will be PHWRs (Pressurised Heavy Water Reactors). They will use uranium as fuel and heavy water as coolant and moderator," he stated.

Dr. Iyengar's confidence obviously stems from the fact that adversity has often brought out the best in the AEC in past. When Canada walked out of its commitment to build the second unit at Rajasthan in the wake of India's "peaceful nuclear explosion" in 1974, India galvanised itself to launch a major effort of indigenisation of its nuclear power projects. And the indigenous content of RAPS-2 went up to 75 per cent from 55 per cent in the construction of the RAPS-1.

Indigenous Efforts

But it was with the starting up of the first unit of the MAPS at Kalpakkam in July, 1983 that India's nuclear electricity programme reached a high-water mark. This was the first project for which full responsibility for the design, manufacture, construction and commissioning rested with Indian engineers and technologists. About 90 per cent of the components for this station were fabricated in various shops in the country itself.

The commissioning of the first unit at Narora in March, 1989 was yet another landmark in the country's nuclear power programme for it was the first in the series of standardised 235 MW PHWRs. And now the second unit is all set to achieve criticality.

Will Target Be Reached?

But the moot question is whether India will be able to reach the desired target including Koodankulam. It is highly unlikely, especially because of the resource crunch. Besides, the sites for the six projects of 500 MW

each have not been announced yet. At least, one site is bound to be enmeshed in controversy because there is an active anti-nuclear power lobby in that State (Kerala). (Some units may come up at Jaitapur and Ujjaini in Maharashtra). Besides, the gestation period between the selection of a site and the unit attaining criticality now stands around 10 years.

Financial constraints have again hit the setting of new heavy water plants that are needed to cater to the requirements of the projects if the NPC wants to reach the target. In fact, the sites have been identified for the setting of these additional heavy water plants. But Dr. Iyengar admitted that "we are not sure (when these new plants to be set up will go on stream) because all the heavy water plants are operating. It depends on the allocation we get from the Eighth Plan."

Heavy Water Plants

At present, six heavy water plants are operational at Nangal, Baroda, Tutticorin, Kota, Talcher and Thal. In fact, the performance of Tutticorin plant, which had suffered serious disruptions in the earlier years, was exemplary in 1990-91. The plants at Baroda, Thal and Kota were satisfactory. Production of heavy water at Hazira in Gujarat also started in 1990-91. Trial production also began in one of the two streams in the plant at Manuguru in Andhra Pradesh.

If Dr. Iyengar exuded confidence on India stepping into Koodankulam because of the experience it has gained in erecting and operating the PHWRs, he was not dismayed either over the prospect of the 30-year agreement between the United States and India on the Tarapur Station expiring in 1993.

The agreement entailed that the Americans would supply the low-enriched uranium as fuel for the two reactors. But when the Nuclear Non-Proliferation Act of 1978 was passed in the U.S. in 1978, it stopped supplying the low-enriched uranium to India as the Act demanded that India should accept full-scope safeguards on its nuclear plants. However, the Carter Administration despatched one shipment of fuel to Tarapur and when Mr. Ronald Reagan became the President of the U.S. it was arranged that France would supply the enriched uranium to India. The arrangement continues to this day.

But who will supply the low-enriched uranium to the Tarapur station when the agreement expires in 1993? Will France continue to do so? Besides, will not the life-time of the Tarapur reactors end by 1993?

Dr. Iyengar was unfazed by these prospects. "It is only 1991 now. Tarapur reactors will continue to function," he asserted. He pointed out that there were many instances where the life-time of the reactor had been extended by 20 years. He added "I hope so (namely the French will continue to supply the fuel even after 1993) because the TAPS is under safeguards."

MOX Prospects

Asked whether India would use the mixed oxide fuel for the Tarapur reactors if the French did not supply the enriched uranium, Dr. Iyengar was equally optimistic, "Simultaneously, we can use mixed oxide (MOX). We can try both (low enriched uranium and mixed oxide). The MOX is to burn the plutonium produced in the reactor. This will take seven or eight years. The unburnt uranium and plutonium that are produced in the reactor can be converted into MOX fuel. Instead of enriched uranium, we will use MOX and light water will be the coolant and moderator."

Whether or not the country generates 10,000 MW of nuclear power in another ten years, there is no uncertainty with regard to two important issues: that India will set up its own PHWRs at Koodankulam if the Soviets pull out of the project and it will use its MOX at TAPS if the French stop supplying the low-enriched uranium to it. And that is a measure of the confidence that the Atomic Energy Commission has built up in itself over the years.

AEC Chief: Possible To Build Own Reactors

92WP0061A Madras *THE HINDU* in English 2 Oct 91
p 3

[Article: "We Can Build Reactors at Koodankulam: AEC Chief"]

[Text] Madras, Oct 1—The Chairman of the Atomic Energy Commission, Dr. P. K. Iyengar, today said the Soviets "have not communicated any problem as such about building the reactors at Koodankulam" in Tirunelveli district. If the agreement with the Soviet Union fell through by any chance, India would build its own reactors there.

(Under the inter-governmental agreement signed by the late former Prime Minister, Rajiv Gandhi, and the Soviet President, Mr. Mikhail Gorbachev, the Soviets are to build two reactors of 1,000 MW capacity each at Koodankulam on a turn-key basis. The reactors will use enriched uranium as fuel and light water as coolant and moderator. There is speculation whether the Soviets will build the reactors following the disintegration of the USSR).

Asked about the uncertainty over the Soviets building the reactors, Dr. Iyengar told *THE HINDU* "We still have to wait for some time until the Russian changes are settled. They have not communicated any problem as such about building the reactors." He did not know yet whether the project would go on schedule.

Dr. Iyengar categorically ruled out the French coming in to build the reactors for the Koodankulam Atomic Power project. There is "no question of the French coming in. They have not made any offer. It is supposed to go through with the USSR collaboration. Otherwise, we have to build on our own" at Koodankulam.

Asked from where India will get the enriched uranium to fuel the reactors if the agreement fell through, he replied, "If we build them, it will be PHWRs (pressured heavy water reactors). They will use natural uranium as fuel and heavy water as coolant and moderator."

Narora unit criticality: Dr. Iyengar said the second unit (235 MW) of the Narora atomic power station in Uttar Pradesh would attain criticality in a month, and the first unit at the Kakrapar atomic power project in Gujarat in February 1992.

Asked whether the two nuclear electricity units at Tarapur, built with U.S. assistance, would continue to function because the 30-year agreement between New Delhi and Washington ended in 1993 and also the units would have crossed their lifetime of 25 to 30 years, Dr. Iyengar asserted "the Tarapur reactors will continue to function." Besides, their lifetime could be extended by more than 20 years.

Dr. Iyengar hoped that the French would continue to supply enriched uranium to the Tarapur units because they were under safeguards, which would continue even after 1993.

Dr. Iyengar, who was in Kalpakkam yesterday to visit the Fast Breeder Test Reactor [FBTR] of the Indira Gandhi Centre for Atomic Research, said experience with the FBTR would help design the 500-MW prototype fast breeder reactor. Its fuel would be mostly oxide or carbide. "The carbide is behaving very well. We have more faith in carbide."

The Kamini research reactor at Kalpakkam would attain criticality in a couple of months.

Asked whether India would sign the Nuclear Non-Proliferation Treaty as South Africa had done it and China had also expressed its willingness to do so, the Chairman said, "I don't think there will be any rethink because it is a Government decision. We are not the same as South Africa or China. We are behaving very well in spite of our crossing the threshold in 1974." (India detonated a nuclear device in 1974).

IRAN

U.S., Western Concern on Nuclear Cooperation Viewed

President Condemns U.S. Stand

LD1711094191 Tehran IRNA in English 0811 GMT 17 Nov 91

[Text] Tehran, Nov. 17, IRNA—President 'Akbar Hashemi-Rafsanjani here Sunday condemned the U.S. Administration for forcing various countries to refrain from any form of nuclear cooperation for non-military purposes with the Islamic Republic.

Speaking at the graduation ceremony of Air Force pilots, President Hashemi-Rafsanjani referred to big powers as "monopolizing and impudent countries."

"America has frankly and boldly announced that the Islamic Republic of Iran has no right to use nuclear technology even for non-military goals," he said adding that Iran is a signatory of the non-proliferation treaty.

The president added that big powers in order to attain their unjustified goals are openly pressing and threatening countries such as China and India.

As for pressure exerted by foreign powers on Iran to block the avenues for promotion of Iran's constructive cooperation with various world countries, he stressed "Under the present world conditions reliance of the Iranian nation on its own potential capabilities is a must."

Va'izi Reaffirms Policy to EC

LD1911202591 Tehran IRNA in English 1716 GMT 19 Nov 91

[Text] Tehran, Nov. 19 (IRNA)—Representatives of the European Parliament in their meeting with the Iranian Deputy Foreign Minister Mahmud Va'izi here today indicated that the recent political, social and economic developments in Iran have been favourable. They also said that Iran is geopolitically an important state especially in the light of developments to its north in the Soviet Union, and called for more solid relations between the Islamic Republic and the European Community.

In response Va'izi said Iran is willing to cooperate with the EC and wishes to pool all its potential for ensuring a secure and stable region. He said the cooperation Iran has offered to neighbouring countries and other states of the region is proof of the country's good will. He criticized sporadic suggestions by certain international media of Iran's nuclear capacity, observing that Iran is opposed to all sorts of atomic stockpiling, and that it advocates total dismantling of all nuclear weapons in the Middle East.

The Iranian official reminded that Iran is a signatory to the nuclear non-proliferation pact, and that it approves nuclear technology only for peaceful purposes.

The group of representatives of the European Parliament arrived in Tehran earlier today.

Commentary Notes West's Fears

NC1811163391 Tehran JAHAN-E ESLAM in Persian 5 Nov 91 p 12

[M. Mollazadeh commentary: "The Friendship Among Iran, Pakistan, and the PRC, and the Contempt of the West"]

[Excerpts] The recent visit by PRC President Yang Shangkun to the Islamic Republic of Iran and Pakistan is

receiving misleading propaganda from U.S. and European media. Europe and the United States have expressed their contempt of the broadening political and economic ties between Iran and Pakistan with the PRC, which they term nuclear cooperation, implying that this cooperation will culminate in the manufacture of nuclear arms and will endanger world and regional peace and stability.

Many Indian publications have made similar insinuations. A question arises, then, about the hidden motives behind such destructive propaganda.

The general impression is that the United States, in its policy of opposing the Islamic countries which are seeking independence of initiative from the collective body of powers dominating the world, is formulating its own propaganda policies, a sort of psychological warfare of distorting the truth. There is no doubt that obtaining nuclear energy for peaceful purposes has become a vital need for many countries. Countries such as Pakistan, which is deprived of even the most basic sources of fuel or only has the bare minimum, are forced to seek nuclear energy to provide power for its developing industries.

The United States and its European allies are well aware of this fact, but for various reasons they have raised the false hue and cry against nuclear weapons being manufactured by Pakistan in their propaganda to exert additional political pressure on Pakistan to abandon its nuclear program. [passage omitted]

Similar, less intensive, claims are being said about the Islamic Republic of Iran. The effort of these countries, however, to attain nuclear energy for peaceful purposes is not mentioned in the propaganda and the West capitalizes on the current world sensitivity toward nuclear proliferation. This is how it strives to incite public opinion against the Islamic Republic of Iran and Pakistan. [passage omitted]

U.S. Concern Over Nuclear Issue 'Hypocritical'

*LD0911183391 Tehran IRNA in English 1723 GMT
9 Nov 91*

[Text] Tehran, Nov. 9, IRNA—A morning daily here Saturday described the so-called U.S. 'concern' over Iran-China nuclear cooperation as being "at best hypocritical."

KAYHAN INTERNATIONAL said: "Although Beijing and Tehran have both stressed that their undertakings in this field are for peaceful purposes, Washington simply does not possess the moral weight to unilaterally dictate who can develop a nuclear capability for whatever the ends may be."

The Japanese cities of Hiroshima and Nagasaki, it pointed out "are international household words because they were victims of American nuclear arms."

While in the Middle East, said KAYHAN "it has been an open secret for 20 years that the Israelis are in possession

of deliverable nuclear warheads. Who does not know that the Zionist state's weapons of mass destruction capacity could not have reached the scale it has without generous American support?"

The editorial titled, 'Old Wine in Old Bottles', said that in order to understand the objective behind such an alarm over what Iran and China were doing in the area of nuclear cooperation, one had to look at a bigger picture.

"Both countries, situated respectively at the far east and west extremities of Asia, also happen to be stumbling blocks in the way of the so-called new world order streamroller being driven by Washington," it said.

Iran and China, noted the daily, had been under direct Western pressure for the past 200 years and "in this century, the victorious revolutions waged by the two nations were the severest of blows for the West and especially for Uncle Sam."

It exposed the racial discrimination in America against what has survived of the indigenous 'Indian' population, and against the peoples of African and Hispanic origin, and suggested that countries "so caught in the American policy cross hairs should consider a perfectly respective counterattack, at least in the sphere of human rights.

"The forum for the battle would be United Nations whose Charter calls for, 'universal respect for, and observance of, human rights and fundamental freedoms for all, without discrimination as to race,'" said the daily.

South Africa and Iraq provide ample "historical precedent for such an inquiry," it took note, and asked Tehran, Beijing and the Third World to consider such an undertaking.

"In the meantime, Washington should be told that ties between the two states (Iran-China) extend back in time some 10 times the age of the United States of America. Funny how this upstart on the world scene likes to dictate," concluded KAYHAN.

Commentary Assails 'Propaganda' on Nuclear Arms

*LD0811131391 Tehran Voice of the Islamic Republic of Iran First Program Network in Persian 0400 GMT
8 Nov 91*

[Unattributed commentary]

[Excerpts] During the past week, foreign broadcast stations launched a fully coordinated propaganda stunt to claim that Iran was intent on building nuclear weapons and that it had acquired equipment for that purpose from China and/or some other countries.

If we pay attention to the time dimension of such propaganda, we see clearly the reason for the current propaganda, which has been launched purposefully with specific objectives in mind.

The Madrid conference, in which for the first time the Arab governments conducted direct talks with Israel, was sufficiently entertaining and surprising not to leave any room for raising false and diversionary issues. Yet, despite the sensitive nature of conditions, foreign radio stations continued their relentless propaganda against our country. They tried to respond to our country's harsh and revolutionary stance against that conference with sensational and provocative lies.

Meanwhile, the visit to Iran by the PRC president provided a suitable pretext for escalating such propaganda. Therefore, several objectives are behind the project to launch the false claim that Iran is intent on manufacturing nuclear weapons. The first objective is to turn public opinion against Iran's development programs and its plan to utilize nuclear technology in various nonmilitary uses as part of one of the government's aims in the five-year plan. The second objective they pursue is to pressure Sino-Iranian relations, which are gaining strength—a relationship that benefits the two countries—as well as independence-seeking policies in Asia. Finally, the third reason is that our country's revolutionary stances in response to the Madrid conference are not to the liking of arrogant powers and their propaganda mouthpieces. [passage omitted]

In the wake of international developments, the U.S. Government apparently supports limiting sales of military weapons to the world's countries, especially those in the Middle East. In practice, however, it wants only to control those governments that do not agree with its arrogant policies.

In the Middle East, for instance, Israel is heavily strengthened militarily because it is the center of America's plots, but the situation changes with regard to other countries, especially Iran. The sale of even a single tank to such countries can trigger tremendous propaganda sensationalism. It then can bring about various pressures and economic and military issues.

The feature in THE WASHINGTON POST, which is very close to the White House, can hardly be a coincidence. The publication of that feature demonstrates that the centers of arrogance are allergic; it also shows planned coordination among these centers. The interesting point is that this newspaper claims that the nuclear equipment acquired by Iran can be used only in military ways. The state-controlled British radio, however, says that the equipment can be utilized for civilian purposes as well. [passage omitted] Of course, the British state-controlled radio tries to prove somehow that Iran is bent on producing nuclear weapons, but in the opinion of that broadcasting station, currently it is not yet possible for our country to attain that objective.

While the British radio follows that formula in its propaganda, the Voice of America insists on saying that the issue of Iran wanting and being able to produce

nuclear weapons is a serious matter, and it is trying—so it believes—to prevent Iran from doing so. [passage omitted]

To confront this wave of propaganda against Iran which undoubtedly is guided by the Zionists, our officials have denied these organized Western rumors through various means. [passage omitted] Yet, despite repeated denials by Iran and China, foreign radio stations continue to raise ifs and buts. It seems they do not intend to abandon these propaganda stunts, stunts that we do not know what lies behind. [passage omitted]

All these reports we quoted show that serious efforts are under way to bring pressure on Iran. Primarily, they intend to prevent our country from achieving development. They intend to neutralize our national assets and use threats to prevent us from engaging in logical planning. [passage omitted]

While the Bushehr project's fate is held in the balance, the recent propaganda by foreign radio stations shows how shameless world arrogance really is. The correct thing to do is to direct public opinion against Western policies and toward anger over the waste of national assets of world countries. Yet, using propaganda as their weapon, the Westerners completely distort the issue. Claiming to confront warmongering and adventurism, they make a plaything of other nations' interests.

Paper Reports China Supplying Enriched Uranium

*JN1011205091 Baghdad AL-IRAQ in Arabic 9 Nov 91
pp 1, 7*

[Text] The regime of the mullahs is reportedly planning new nuclear arms projects as disclosed today by the Mojahedin-e Khalq. Hashemi-Rafsanjani is said to have tasked Major General Mohsen Reza'i, general commander of the Islamic Revolution Guard Corps [IRGC], and Admiral 'Ali Shamkhani, the regime's naval chief, with supervising a special project to fit "Silkworm" missiles with nuclear warheads.

This top secret project is being pursued by a special unit of the IRGC headed by Admiral Navab and IRGC chief 'Abbas Muhtaj, deputy commander of the IRGC naval forces. It should be recalled that the IRGC took charge of all the industries and resources associated with short- and long-range missiles.

In a session chaired by Hashemi-Rafsanjani held at 1530 on 26 October, the National Security Council decided to relocate all the communications systems and military equipment, including "Silkworm" missiles from the Gulf islands of Tumb al-Kubra and Tumb al-Sughra and Abu-Musa, to the northern shores of the Strait of Hormuz so that the military equipment and missiles can be kept outside the range of U.S. AWACS planes.

Pro-Khomeyni sources say that during the deliberations within the circles of the Khomeyni regime, Hashemi-Rafsanjani approached China for the technology to enrich uranium, and for enriched uranium when he met recently with the Chinese president, who was accompanied by his adviser on nuclear affairs. According to regime officials, China promised to supply the requirements for enriching uranium. Part of the technology promised by Chinese nuclear establishments has already been supplied.

Meanwhile, the IRGC is presently developing its programs in the "Ma'alem Kelayah" nuclear facility near Qazvin (northeast of Tehran) and in "Darkhovin," one of the headquarters of the IRGC near Iran's southern borders with Iraq in Khuzestan Governorate. Last week, upon completion of the main buildings and installations at the Darkhovin project, a number of Chinese experts and specialists arrived at the camp to install nuclear research equipment.

The pressure recently applied by the regime on France was principally calculated to obtain enriched uranium to help its military projects. The deal concluded in Paris recently should lay the legal groundwork for the regime to obtain enriched uranium.

Paper Says Tehran Seeking Nuclear Capability

TA1511164491 Jerusalem *Qol Yisra'el* in Hebrew
1600 GMT 15 Nov 91

[Text] The newspaper AL-'ALAM, which is an Arab newspaper appearing in London, has reported that an Iranian deputy president confirmed that his country is making efforts to produce an atomic bomb. 'Ata'ollah Mohajerani, the deputy president for legal and parliamentary affairs, said that not only Iran but all the Muslims must achieve nuclear capability in order to compete with Israel's capability. He asserted that Pakistan had become a nuclear power after decades of activity in this field.

The Arab weekly AL-USBU' AL-'ARABI this morning reported that Washington had proof that Iran was gathering equipment to produce nuclear weapons.

IRAQ

'Analysis' of Iranian Nuclear Plans

JN1911192691 Baghdad Republic of Iraq Radio
Network in Arabic 1720 GMT 19 Nov 91

[Unattributed "news analysis"; from the "Spotlight on the Events" program]

[Excerpt] Observers are following with interest the Iranian regime's statements and political moves that affirm its intentions to acquire nuclear weapons. This arouses growing concern among Arab political circles in particular and among the Middle East states in general. As the forces of the U.S.-Atlantic-Zionist aggression continue to

impose the unjust blockade on the Iraqi people and concentrate efforts on destroying Iraq's defensive weapons, many states in the region, such as Iran and Turkey, are publicly building their offensive military capabilities and do not conceal their ambitions to acquire nonconventional weapons. This, in addition to the Zionist nuclear capability, could make the Arab region face a future nuclear threat from various directions, forcing it to live in constant nuclear terror. [passage omitted]

ISRAEL

Indian Supply of Nuclear Reactor to Iran Viewed

'Sources' Express 'Serious Fear'

TA111104191 Tel Aviv *YEDI'OT AHARONOT*
in Hebrew 11 Nov 91 p 1

[Report by Shim'on Schiffer and Tzadoq Yehezqeli]

[Excerpt] An Indian newspaper published in Bombay yesterday reported that India will supply Iran a nuclear reactor next month.

Quoting reliable sources, the newspaper wrote that the reactor will have 10 megawatts of power and that it will serve for scientific research purposes. At the same time, it reports that the reactor will be able to produce plutonium, used in the production of nuclear weapons.

The paper also reported that all the discussions and plans concerning the reactor were classified as "a state secret" in Iran and India. The Indian Center for Atomic Energy refused to confirm the report.

Authoritative sources in Israel expressed serious fear over the reports about the Iranian efforts to develop nuclear power. The sources stressed that on more than one occasion Iran has stated that it would provide all of its military might for the Arabs to destroy the State of Israel. [passage omitted]

Clarification Sought From India

TA1211121091 Tel Aviv *HA'ARETZ* in Hebrew
12 Nov 91 p A2

[By Yerah Tal]

[Excerpt] There is no confirmation in Israel that India is about to supply a 10-megawatt nuclear research reactor to Iran. This was the reaction in Jerusalem to a report, which was published in a paper in Bombay the day before yesterday.

The Indian paper reported that the Iranian and Indian Governments had lately concluded this secret deal. At the same time, a political source in Jerusalem noted that Israel will ask for clarifications from the Indian Government "through diplomatic channels."

Authoritative elements in Israel expressed apprehension about the new reports on Iran's efforts to develop nuclear weapons. The reactor in question is defined as a research reactor indeed, but it can be used for the production of plutonium, a substance used in the production of nuclear weapons. [passage omitted]

PAKISTAN

Paper Notes China Ties, Nuclear Proliferation
BK1111133291 Islamabad THE MUSLIM in English
29 Oct 91 p 6

[By Shireen M. Mazari]

[Excerpts] As the U.S. moves into the final stage of asserting its agenda in the Middle East, with the holding of the Madrid Middle East conference to dictate the fate of the Palestinians and redefine the politico-military dynamics of this region, it is also focusing increasing attention on South Asia. As American designs in this region become more overt, one can see a consistency in the pattern emerging in various regions of the world which reflects the altered global military-politico milieu. [passage omitted]

A major step in this direction seems already to have been taken with what appears to be an emerging triangular strategic consensus between China, Pakistan and Iran. While Pakistan has had a long-standing relationship with both these states, the linkages developing between Iran and China is a newly emergent factor which allows Pakistan to play a central role in directing this triangular arrangement towards intensified politico-military cooperation. China and Pakistan already have a history of cooperation in the defence production field, and Pakistan and Iran have also made a cautious start in this direction.

However, in the final analysis, in terms of security, nothing can substitute a strong national defence—especially with Iran seeking economic links with India, and China seeking rapprochement with India. It is within this context that Pakistan must take decisions relating to its nuclear-weapons option and its conventional force developments—especially the indigenisation of defence production.

In other words, if the leadership is convinced that the nuclear issue has a purely bilateral context and the nuclear option is relevant only as long as India retains that option, then it makes sense to talk in terms of signing the NPT [nuclear nonproliferation treaty] on condition that India does too. However, if the nuclear option is a viable posture for a credible defence, then it should not be bargained away. For instance, one must examine the quantitative and qualitative military imbalance in India's favour in terms of conventional defence and assess whether there is any way, other than the nuclear option, of rectifying this imbalance.

Simply desiring peace with India is not a sufficient reason to abandon a strong defence as long as very critical issues remain unresolved between the two sides. In fact, there is a strong case to suggest that nuclear deterrence will not only allow Pakistan the flexibility of keeping its conflicts with India localised (as it happened in the summer of 1990 over Kashmir), but will also allow it to cut down the burden of its conventional defence budget.

Therefore, the Pakistani leadership needs to consider all the security ramifications before continuously claiming that it will sign the NPT along with India.

Finally, within the framework of its security imperatives, Pakistan also must be absolutely clear that given the new Indo-American relationship, American efforts to broker any form of agreement between India and Pakistan on Kashmir will be heavily biased in favour of the former—just as the Madrid initiative relating to the Palestinian issue is heavily tilted in favour of the policy objectives of Israel. If peace brokers need to be sought, they must be sought elsewhere, and when Pakistan's local position has the appropriate politico-military advantage on the ground.

It is within these security imperatives that Pakistan must consider the multiple arms-control arrangements that are being vociferously pushed through by the U.S. and its allies. The issue of nuclear nonproliferation has seen an enthusiastic revival as a result of the Gulf crisis. Interestingly, it has been accompanied by revelations of the strength of Israel's nuclear arsenal without the accompanying pressure for Israel to give it up. In addition, the U.S. showed a wish to give de facto recognition to India's nuclear capability by attempting to allow India to bypass the Pressler Amendment—so religiously adhered to in the case of Pakistan.

The noise over the fact that China and France have agreed to sign the NPT has been aimed at downplaying the fact that signing the NPT will not alter the nuclear status of these states. In any case, France had been subscribing to the norms of nuclear nonproliferation regime since it became a party to the London Suppliers Club, and China's nuclear cooperation with other states has also been of a very limited nature.

Accompanying the NPT in renewed vigour is the new baby of the global arms control agenda—the Missile Technology Control Regime (MTCR). The MTCR is not a formal treaty but, like the nuclear suppliers club, a framework for regulating the export policies of the participating states—through the prohibition of the transfer of nuclear-capable missiles to the developing world along with restricting the supply of missile-related technologies.

Together with the NPT, the MTCR's intention is not to prevent the build-up of arms arsenals in the developing world per se, but to merely deprive them of the option of developing technologically advanced weapons capabilities—as if killing by tanks is all right but not by missiles!

Of course, the MTCR will also deprive states of the spin-off effects of such technologies in the civilian sphere.

In South Asia, the focus of the MTCR has been Pakistan since India's missile programme is largely indigenous. The MTCR has gained prominence not only because of the technical improvements in developing countries' missile payloads, range, reliability and accuracy; but also because of the linkage between missile technologies and nonconventional warheads (chemical and nuclear).

The pressure of the MTCR makes it imperative for Pakistan to develop its indigenous missile-production base, and here the criticality of its relationship with China becomes apparent. Like the nuclear deterrent, missiles, which in the Indo-Pakistan framework seem rational primarily within an unconventional mode, can only strengthen strategic stability and allow for conventional defence cuts.

Therefore, Pakistan must realise the fallaciousness of the argument that missile proliferation is inherently destabilising. The real source of instability in regions like South Asia has been the continuing conflicts among the states of the region as well as the internal subnational conflicts which spill over into neighbouring states. As internal conflicts get enmeshed with external inter-stage conflicts, stable and secure deterrence is the only sine qua non for maintaining regional peace and keeping conflicts limited. That the American agenda in South Asia seeks to destroy this through its security and arms control policies, must be recognised and dealt with by Pakistan and its allies.

Chinese Aid, Support for Nuclear Stand
BK111112991 Islamabad THE MUSLIM in English
29 Oct 91 p 6

[Editorial: "Friend in Hour of Need"]

[Excerpt] The two agreements concluded at the end of talks between the visiting Chinese President Yang Shangkun and President Ghulam Ishaq Khan are a testament to the two leaders' description of Pak [Pakistani]-China ties as "an all weather friendship." The first agreement involves a loan of 50 million yuan for Pakistan, and the second, comprises a grant of 3 million yuan for Afghan refugees in Pakistan. The significance of these two accords lies not in the amount but in the fact that China is giving us this assistance at a time when aid from other countries—economic, military and humanitarian—is not forthcoming.

Pakistan's major aid donor, the United States, has halted all aid since last year, and we are also feeling the crunch of the recent decision taken by other aid-giving countries and agencies (e.g., Japan, Germany and the IMF) to impose conditionalities on aid to all countries, including Pakistan. As President Ghulam Ishaq Khan said in his banquet speech, international humanitarian assistance

for the three and a half million Afghan refugees in Pakistan has also recently declined.

The Chinese 50 million yuan loan is not only free of political strings and conditionalities but also interest free. Pakistan will not forget China's financial pledge at this hour of need. The gesture will serve to bind and strengthen further the already close friendship between the two countries built up over the past forty years. [passage omitted]

Rejects 'Discriminatory' Nuclear Curbs

BK1611162991 Hong Kong AFP in English 1154 GMT
16 Nov 91

[Text] Islamabad, Nov 16 (AFP)—Pakistan said Saturday it would not accept any discriminatory restrictions on its nuclear programme, hoping the U.S. would adopt a reasonable attitude at the bilateral talks here next week.

The country supports a solution to the issue through a regional nuclear weapon [word indistinct] arrangement in South Asia also including India.

"We are hoping that the United States will try to be less unreasonable" when the two countries hold discussions on bilateral relations, Foreign Ministry Secretary General Akram Zaki told reporters here.

Reginald Bartholomew, U.S. under secretary of state for international security, is to arrive here Monday with General Joseph P. Hoar, the commander in chief of the U.S. Central Command.

The visit will be the first by senior U.S. officials since Washington cut off its nearly 600 million dollar annual economic and military assistance in October 1990 over suspicions that Pakistan's nuclear programme was weapon-oriented.

During his three-day stay, Bartholomew will meet with President Ghulam Ishaq Khan and Prime Minister Nawaz Sharif besides holding formal talks with top Foreign Ministry officials.

The aid was frozen under the U.S. Pressler law which forbids assistance to countries possessing a nuclear device.

Pakistan, which insists its atomic programme is entirely peaceful, has refused to sign the nuclear Non-Proliferation Treaty (NPT) until its regional rival India also agrees to do so.

"Pressler is a discriminatory law, Pakistan will not accept it," Zaki said at a meeting with the Foreign Press Association here.

He emphasised that Washington should apply the same yardstick on the nuclear issue to both Pakistan and India, and that only then could Islamabad consider any proposals.

"Pakistan's position on the subject is very clear," Zaki said, adding that the country was aware of the limitations imposed by the Pressler law and that was why it was not raising the aid problem.

"If there are to be any adjustments, they have to be made by both sides," he said, referring to the standoff between the two traditional allies.

He denied Pakistan was under any pressure to sign the NPT in isolation from India, stressing that the country had received a positive response to its proposal for five-nation consultations involving the United States, the Soviet Union, China, India and Pakistan.

Zaki said there was some "re-thinking now in India," which initially rejected Nawaz Sharif's June 6 proposal for a nuclear-free South Asia and mutual disarmament of weapons of mass destruction as well as the conventional arms.

UN Said To Support Nuclear Proposal

*BK1511104891 Islamabad Radio Pakistan Network
in English 1600 GMT 14 Nov 91*

[Mohammad Yamin commentary]

[Text] Pakistan's draft resolution on establishment of a nuclear-weapon-free zone in South Asia has been adopted by an unprecedented overwhelming majority by the Political Committee of the United Nations General Assembly. The Pakistani resolution, which was cosponsored by another South Asian country, namely Bangladesh, received 104 votes in favor as against only three opposing it, and 25 abstentions. Of the three states opposing the proposal, India is one. The proposal on this subject was introduced by Pakistan for the first time in 1974—the year India exploded a nuclear device—and every year it has received a majority support in the UN General Assembly. But this year, the proposal has received the highest number of positive votes. More significantly, this time the Soviet Union, along with the Soviet republics of Ukraine and Belorussia, which are full-fledged members of the UN General Assembly, has for the first time switched its position from the easing of tension to outright support. The proposal, which will come up before the General Assembly next month, is likely to receive a heavy endorsement.

While three other nuclear-weapon powers—the United States, Great Britain, and China—had always favored the Pakistani proposal on a nonnuclear-weapon South Asia, the newly pledged Soviet backing for it is expected to have far-reaching implications. It would certainly provide a considerable boost to Pakistan prime minister's 6 June initiative which envisages a conference between the United States, the Soviet Union, China, India, and Pakistan to consider the establishment of a nonnuclear proliferation regime in South Asia. The change of Soviet position also constitutes a landmark in the postcold war era in which the nuclear-weapon powers

are (?apparently) active and greatly concerned in addressing the question of nuclear nonproliferation in South Asia.

The importance of a nuclear-weapon-free zone in South Asia cannot be overemphasized as it is a vital aspect of the global effort for disarmament. Pakistan vehemently supports it and it has, in fact, never had any intention of acquiring weapon-grade nuclear capability. Its modest nuclear program is directed toward development of energy for peaceful purposes. However, it has always pleaded for an evenhanded, balanced, and nondiscriminatory approach toward all the South Asian states. Pakistan correctly believes that placing regulatory obligations on some states through the exclusion of others is not only contrary to equity and fair play, it would also not serve the cause of nonproliferation in the region. Hopefully the UN secretary general would, in accordance with the draft resolution, succeed in promoting consultations among the states of the region and other concerned nations, such as the permanent members of the Security Council and the countries located in the vicinity of South Asian region, with a view to exploring the best possibilities of furthering the efforts for establishing a nonnuclear-weapon zone in South Asia and persuade all the nuclear states to refrain from taking any action contrary to the content and spirit of the Pakistani-sponsored resolution.

While the concept of denuclearized areas is universally accepted and such zones have already been established in Latin America, the Antarctica, the outer space, and the seabed, and denuclearization of the Central Europe and the Balkans is under active consideration, the proposal for such a zone in South Asia has not made much practical headway despite the UN support for it during the last 17 years. This has happened mainly on account of the Indian intransigence and the Soviet ambivalence toward the issue. Now that there is full support from the Soviet Union for a denuclearized South Asia, it is to be hoped that the Indian opposition would also no longer endure.

Government Welcomes UN Nuclear Arms Resolution

*BK1311133091 Islamabad Radio Pakistan Network
in English 1300 GMT 13 Nov 91*

[Text] Pakistan has expressed its satisfaction over the increasing support at the UN for its call for establishment of nuclear weapon-free zone in South Asia. Commenting on adoption of a draft [word indistinct] resolution on a nuclear weapon-free zone in South Asia by an overwhelming majority at the first committee of the UN General Assembly, a Foreign Office spokesman in Islamabad said it augured to achieve this objective. A notable achievement for Pakistan this year is that the Soviet Union supported the Resolution for the first time. He hoped it will also give impetus to the proposal of the

Pakistan prime minister for five-nation consultation for establishing a nuclear nonproliferation region in South Asia.

At the first committee level another achievement for Pakistan was the passage of another draft resolution cosponsored by 40 other countries regarding regional disarmament. The spokesman expressed the confidence that the increased support this year would help achieve the objectives of nuclear nonproliferation in South Asia and reduction of conventional armament.

Prime Minister's Reportage on Nuclear Arms

Denies Program Exists

JN1311144791 Manama WAKH in Arabic 1300 GMT 13 Nov 91

[Text] Doha, 13 Nov (WAKH)—Pakistani Prime Minister Nawaz Sharif has denied that his country is making efforts to acquire nuclear weapons. He indicated that Pakistan has a modest nuclear program of a purely peaceful nature, the launching of which was dictated by Pakistan's urgent need for energy.

In a statement to the QATARI NEWS AGENCY carried today, Nawaz Sharif affirmed that the nonproliferation of nuclear weapons in South Asia is a prerequisite for peace in the region.

The Pakistani prime minister emphasized the need to achieve joint cooperation among Islamic states in all areas, particularly in the scientific and technological sectors in a manner that serves common interests so that these countries can match the development achieved by other countries.

As for Pakistan's reaction to the Madrid Middle East peace conference, Nawaz Sharif welcomed the convening of the conference and reiterated the consistent stand of Pakistan which emphasizes the need to achieve a comprehensive peace in the Middle East based on UN resolutions.

In reply to a question on Pakistan's position vis-a-vis the conflict in Afghanistan and the attempts by some parties to put pressure on the Afghan mujahedin to impose a non-Islamic solution, Nawaz Sharif affirmed that Afghanistan is an Islamic country. Similarly, he asserted that its people will not accept a non-Islamic solution to their problem. He reiterated that his country is still committed to a political settlement of the Afghan conflict.

With regard to the Kashmir issue, the Pakistani prime minister called for resolving the issue in light of the relevant UN resolutions, which provide for holding a fair and honest referendum to enable the province's population to exercise their right to self-determination. He regretted the fact that the Indian authorities had used excessive force in the province, a matter which caused the deaths of thousands of residents.

With respect to Pakistan's ties with Qatar and the Gulf Cooperation Council member states, Nawaz Sharif termed his country's ties with Qatar as strong. These ties, he added, are based on cultural, political, and religious factors which have brought the peoples of the two countries together over hundreds of years. He expressed the hope that bilateral cooperation will grow further in the wake of the visit to Pakistan concluded yesterday by His Highness Shaykh Khalifah Bin-Hamad Al Thani, Qatari heir apparent and defense minister. Pakistan seeks to build bridges of friendship with the Gulf states, Nawaz Sharif concluded.

Denies Helping Iran With Reactor

BK1211114891 Islamabad Radio Pakistan Network in English 1100 GMT 12 Nov 91

[Text] The prime minister, Mr. Mohammad Nawaz Sharif, has said Pakistan would welcome and cooperate with any proposal from any country willing to play a role in the resolution of Kashmir issue. He was asked by newsmen in Islamabad today to comment on Iranian president's offer for mediation to resolve the outstanding problems between Pakistan and India. The prime minister said Pakistan values the Iranian support to it on the Kashmir issue. He described the Iranian stand on Kashmir as courageous and principled.

He replied in negative when asked if Pakistan had helped Iran in the construction of any nuclear reactor.

Replying to a question, the prime minister said the judicial commission set up by him to probe opposition's allegations against his government in the cooperatives crisis would soon give its findings. The nation would then judge and give its verdict against those who are making baseless and wild allegations.

Mr. Mohammad Nawaz Sharif said his hands are clean and pointed out that he had on his own presented himself for accountability so that the truth is known [words indistinct]. He said he had done nothing wrong and would not accept any aspersion cast on his government. He said it is these very people who plundered public money during their rule and the references against them are now before courts of law. He said those who published the so-called Plunder of Pakistan were responsible for the surrender of Pakistan and also indulged in plunder of people's money.

Minister Notes Nuclear Program's Peaceful Nature

BK1011162491 Islamabad Radio Pakistan Network in Urdu 1500 GMT 11 Nov 91

[Excerpt] Parliamentary Affairs Minister Chaudhary Amir Hussain has reiterated that Pakistan's nuclear program is solely for peaceful purposes. He was speaking on the admissibility of two identical privilege motions for debate in the Senate which Tariq Chaudhary and Akhundzada Bahrawar Sayeed wanted to move. The motions related to the statement by Benazir Bhutto to a

foreign correspondent in which she had said that Pakistan had been engaged in nuclear weapons development for the last five years [as heard] and which NAWA-I-WAQT had published this statement in early September.

The parliamentary affairs minister clarified that Pakistan neither desires to manufacture nuclear weapons nor has any such program. Opposing the motions on technical grounds, he said this matter cannot be raised in the Senate because it is concerned with a member of the National Assembly. The movers in their speeches said that some powers want to punish us in this connection and that Benazir Bhutto is providing them with all such pretexts. They said that as a former prime minister she had violated her oath not to reveal official secrets and by making such statements she had violated the nation's faith. [passage omitted]

Any Attack on Nuclear Installations 'Act of War'

BK1911091091 Islamabad Radio Pakistan Overseas Service in English 0800 GMT 19 Nov 91

[Text] The Senate was assured this morning that the country's nuclear program is entirely for peaceful purposes and these facilities would be defended against any attack from any quarter. This assurance was given by the minister of state for foreign affairs, Mr. Mohammad Siddique Kanjoo, while speaking at an adjournment motion by Syed Istiaq Azhar. The minister reiterated that Pakistan would consider any attack on its nuclear installations as an act of war and would deal with it accordingly.

Earlier, during question hour, the house was informed that a number of measures have been taken to deal with the problem of substandard drugs.

U.S., USSR To Develop Nonproliferation Experts

924P0020A Moscow NEZAVISIMAYA GAZETA
in Russian 19 Oct 91 p 4

[Article by Andrey Zagorskiy and Yuriy Leonov under "Contacts" rubric: "Control of the Nonproliferation of Arms: Under the Conditions of the Disintegration of the Country, It Can Be Implemented by Independent Experts"]

[Text] [Andrey Zagorskiy]

The first international seminar on the nonproliferation of different kinds of arms was held at Nakhabina near Moscow. It was organized jointly by the Moscow State Institute for International Relations of the USSR Ministry of Internal Affairs and the International Studies Institute in Monterey (United States).

The seminar begins a two-year project, the objective of which is the preparation of a new generation of nongovernmental experts on this problem for our country. The group of 15 persons includes representatives of different occupations from different cities of the country.

The civilian society that is now coming into being is attempting to establish at least minimal control over the actions undertaken by the government. In many areas, however, everything comes down to one main problem—the lack of competent specialists capable of really evaluating proposed solutions and of developing alternatives. All of this applies in full to the nonproliferation of arms.

The disintegration of the USSR raised the acute question of the fate of Soviet nuclear weapons and not just strategic but also tactical weapons. The problem is not just in the existing arms but also in the presence of industrial capacities of the nuclear cycle beyond the borders of Russia. The desire to earn foreign exchange and conversion are pushing our nuclear complex toward more active participation in world markets. This tendency, multiplied by the development of the commercial sector, is conflicting with the task of strengthening the regime of nonproliferation of nuclear weapons.

The willingness of the USSR to supply weapons and materials to a number of countries—Pakistan, India, Israel, and Cuba—is causing serious concern. These and other facts were discussed at the seminar by Prof. William Potter, project manager on the American side. The situation is being aggravated by the USSR's lack of legislation and openness with respect to the export of materials and technologies that may be used in military production.

But as of today the country does not have an extensive network of nongovernmental experts who could not only give an independent appraisal of current decisions but also follow up on the processes taking place, especially here in this country.

Of course the Soviet-American project that was begun in Nakhabina cannot fully resolve this problem. But it will help to establish a new community of independent Soviet experts.

[Yuriy Leonov]

One of the American managers of the project, Prof. William Potter from the Institute of International Studies at Monterey, said: "We will be satisfied if even four of the 15 Soviet participants in the project become real specialists in the area of the nonproliferation of arms within two years. We want to give the Soviet young people an opportunity to have contact with the most experienced and well-known Western experts. We want to attract attention to our project from Soviet scientists, journalists, and politicians, that is, those who will be able to impart to the Soviet public an understanding of the importance of the problem."

Under the conditions of absolute shortages, uncertainty about tomorrow, and the striving for hard currency as the only stable support, it may very well happen that some newly arrived private dealer or unemployed nuclear scientist will sell a nuclear component, technology, or simply his own previously secret knowledge to the next Saddam at the going price. Even the potential possibility of this demonstrates the necessity of exercising both governmental and intergovernmental as well as independent (national and international in scope) control over the nonproliferation of arms.

International Arms Trade Criticized

92UF0208A Moscow TRUD in Russian 13 Nov 91 p 3

[Article by E. Alekseyev: "More About the 'Death Trade': An Observer's Opinion"]

[Text] No matter what motives may be used to justify the international arms trade, it remains, in essence, a "death trade"—arms are sold so that, in the final analysis, some people can use them to kill other people.

When war broke out in the Persian Gulf, many persons clutched their heads and wracked their brains as to how this could be. Iraq, after all, had been armed, for the most part, by those countries which are permanent members of the UN Security Council! Also by Germany and several other "prominent" states.

In September, when Beatrix, Queen of the Netherlands, delivered a speech from the throne to the parliamentary deputies, she emphasized that the crisis in the Persian Gulf very clearly showed how dangerous it is to have an excess of arms and arms export without monitoring controls. In this connection, the Netherlands—together with other EC partners—called for the adoption of a so-called registry of international arms within an UN framework.

A reasonable, sensible initiative. It is a great pity, however, that, while this has been going on, that same

Netherlands has plans to sell six new submarines...to Taiwan. Would such a deal facilitate the improvement of the situation in just one of the world's regions? It is extremely doubtful.

And, in general, the "death trade" is proceeding at a very brisk pace. The above-mentioned Taiwan for example, wants to purchase 16 more frigates from France and is conducting negotiations with Germany and Italy. In addition to large-scale deliveries to the Middle East, the United States intends to sell 18 fighter planes worth a total of 347 million dollars to Thailand, 117 million dollars' worth of arms and equipment to South Korea, etc.

There is still an extremely widespread opinion that the USSR exports at least as much—if not more—arms as the United States. But here are some data cited by the authoritative, non-governmental, American organization known as the Center for Defense Information. During the current fiscal year the sales of arms and military assistance by the United States to other countries could reach an amount worth 41 billion dollars. Last year the proportional share of the United States in the world arms market had already increased to 40 percent of the total, whereas that of the USSR had declined to 29 percent. The Center's experts have noted the following: "Despite the fact that the 'Cold War' is over, and Soviet deliveries are decreasing, the United States plans to expand its arms exports. Such a policy is the result of pressure from arms producers in the United States who are interested and motivated to increase their own profits and also pressure from the Pentagon, which desires to have an enormous arms industry."

And so, as we have seen, even according to American data, the United States has so far not been curtailing, but rather expanding, its own foreign arms business. Moreover, it is perfectly obvious that this is being done in order to accomplish at least the following three basic tasks. In the first place, arms shipments to one country or another allow a so-called "mutual understanding" to be strengthened with that country. In the second place, arms sales bring in extremely significant income, which everyone needs; and they are also utilized to improve the country's own arms.

But, of course, we could say all these things about our own arms exports as well. To be sure, there is a particularly noticeable difference between us and the United States in that the latter—as we have just seen—is increasing these exports, whereas we are reducing them. Why is that? Is it because we have decided to curtail them in principle? Or because we do not need "that kind" of money? Or will we no longer be improving our arms? In my opinion, we could ask a great many more questions on this matter than we could find answers to.

And some persons even assert that the reduction of arms sales is entirely a matter of necessity, inasmuch as these weapons do not stand up to the competition in the world's markets. I am convinced that this thesis is being

applied to us by those persons who are well-acquainted with the high degree of competitiveness possessed by many types of our weapons. For example, we can easily obtain at least 20 million dollars for each MIG-29. And many countries are prepared to purchase them, including Germany and even the United States. And there are several more types of our warplanes and other weapons types which are highly regarded in the world's markets.

And again the question arises: Why then are we winding down our arms exports? Is it because of the general confusion and muddle? Or is it because of moral and ethical considerations, which have made a 180-degree turn—something which is likewise characteristic of us?

On the moral and ethical level we have obviously been compelled to take into account the morals and customs of the world community, in which are actively seeking to become a full member. Without a doubt it is correct and noble for us to struggle to institute an orderly procedure in the arms trade. And we are not the only ones to put a complete halt to the "death trade"—something which has so far proved to be unrealistic—or at least to place it under some kind of monitoring controls.

In October this problem was the subject of a two-day meeting in London by representatives of the five permanent members of the UN Security Council—Great Britain [i.e., the United Kingdom], China, the USSR, the United States, and France. And it is specifically they who account for 65 percent of arms sales throughout the world. At this conference the Earl of Caithness [Douglas Hurd], the Secretary of State for Foreign and Commonwealth Affairs, immediately mentioned that the history of the attempts to restrict or limit the arms trade is "littered with the rains of noble but failed initiatives." And here he emphasized that states should not be deprived of the right to purchase arms for the purpose of securing the right to self-defense, as guaranteed to them by the UN Charter.

It is fully obvious, then, that the converse is likewise true—that someone should have the right to sell them these arms. But to whom, how many, and to what would this lead? The participants in the London meeting adopted a communique. Therein they served notice that they would not take part in arms deals which would, in the first place, lead to stepping up an armed conflict, in the second place, increase tension and destabilize the situation in any region, and, in the third place, exceed the defense requirement of the country involved. Furthermore, the parties intend to "avoid" violating international embargoes, encouraging terrorism, and supplying arms to opposing factions or groups within a specific country.

You must agree that all this is more like a "protocol of intentions" than a concrete understanding or arrangement. To be sure, taking into account the specifics of the situation in the Middle East, the permanent members of

the Security Council promised to inform each other about sales of tanks, armored vehicles, artillery, warplanes, and helicopters to the countries of this region. Was it not obvious that this information was for the purpose of exercising monitoring controls on each other?

We could add to this that the representatives of the five states involved welcomed the steps taken by the UN with regard to introducing a special registration of all operations for trading in conventional weapons. And they called upon the world community to support this plan. Indeed, now may be the time to see to it that at least a registry of arms purchases and sales throughout the world is compiled. Then at least we could see in specifically what region of our planet too much gunpowder is being piled up.

But, on the whole, it must be asserted that among the world's leading states a readiness has not yet matured to abandon the arms trade—to any decisive degree—as a means of securing their own military-strategic interests and of acquiring high profits. But it is high time for such a task to be assigned, and it must be carried out on the basis of mutual understandings. Because each such understanding will save a significant number of human lives. Or will we wait for new "Desert Storms?"

Canadian Concern Over Nuclear Sales Cited
924P0031A Moscow SELSKAYA ZHIZN in Russian
12 Nov 91 p 3

[Report by TASS correspondent V. Vasilets: "Canadian Experts Are Worried"]

[Text] Ottawa, 11 November—"There is increasing evidence that some representatives of the Soviet nuclear complex are contacting private companies for the sale of their products overseas," Tarik Rauf [name as transliterated], an expert at the Canadian Center for Arms Control and Disarmament, declared in the newspaper GLOBE AND MAIL.

Encountering cuts in government appropriations, the Soviet nuclear complex is seeking new ways to finance its research and production, writes T. Rauf, who visited the Soviet Union in October. The danger of such events cannot be underestimated under the conditions of the disintegration of the Soviet state, the expert emphasizes. For this reason Canada should adopt the appropriate measures. It should seek from Soviet and Russian officials additional information on this subject, officially inform the USSR Foreign Ministry and the Russian Foreign Ministry of its concern and offer assistance in the development of legislation on control of exports. Canada should also make economic cooperation with Russia and the other republics dependent on their adoption of the appropriate export-control legislation and guarantees on this score, T. Rauf observes.

Swiss Confiscate Illegally Exported Uranium
92UF0216A Moscow RABOCHAYA TRIBUNA
in Russian 15 Nov 91 p 3

[Article by Sergey Sedov: "Another Scandal?"]

[Text] Geneva—An international network of traders in uranium which entered the West illegally, supposedly from the USSR, has been discovered by the Zurich police. As a result of operations conducted in one of the city's hotels, seven people were arrested "at the scene of the crime" and more than 29 kilograms of a "weakly radioactive" substance were confiscated, a TASS correspondent reports.

This sensational news is contained in an official report of the Zurich Canton police. According to this document, the indicated radioactive cargo, which consists of small pieces of the substance two to three centimeters in length, kept in two ordinary suitcases, was discovered by the police in the trunk of a car belonging to the esteemed Honduran consul in Switzerland who resides permanently in Zurich: 66-year-old Swiss citizen Federico Renfer [name as transliterated].

At the same time the Zurich police did not officially confirm the "Soviet" origin of the "weakly radioactive" material seized by its workers.

Union Agrees To Hold Iraq's Enriched Uranium
OW1411134091 Moscow INTERFAX in English
1130 GMT 14 Nov 91

[Transmitted via KYODO]

[Text] According to IF's [INTERFAX] sources, the Soviet Union has consented to temporarily store on its territory the Iraqi reserves of enriched uranium discovered by the UN inspectors. Under this purely commercial deal with the United Nations, the USSR will keep all the reserves of nuclear raw material found in Iraq, including those the USSR itself earlier supplied to that country.

The USSR Ministry of Foreign Economic Relations has confirmed that the Soviet Union used to supply Iraq with enriched uranium which was used at the Soviet-made nuclear reactor built for training purposes near Baghdad. The ministry says that this nuclear facility, now being checked by experts of the International Atomic Energy Agency, used to train only Iraqi specialists and employed no Soviet personnel.

If the UN inspectors are convinced that the reactor has been used for exclusively civilian purposes, the USSR will return the uranium to Iraq with UN permission. In that case, it will be entitled to a reward for keeping the nuclear stuff.

Union Agrees To Bury Iraq's Enriched Uranium**Agreement With UN**

*PM1811151591 Moscow KOMSOMOLSKAYA
PRAVDA in Russian 15 Nov 91 p 3*

[Report by S. Brilev: "Deathly Silence on the Matter Here"]

[Text] AFP announced on 14 November that our country had agreed to bury on its territory, "on a purely commercial basis by agreement with the United Nations," enriched uranium and other radioactive substances found by UN experts at nuclear facilities in Iraq, including substances supplied by the Soviet Union itself.

We immediately contacted Albert Shishkin, general director of "Tekhsnabeksprom" [All-Union Association for export and import of radioactive and stable isotopes, rare metals, and nuclear engineering equipment].

"All I have heard is that after the end of the war in the Persian Gulf nuclear fuel of unknown origin was found at a research reactor in Iraq. Perhaps it is ours, or perhaps it is French, or someone else's. Naturally, it should be returned to the supplier. It is not yet known who supplied the fuel. As for the report about our willingness to bury these radioactive substances on the territory of the USSR, I know nothing of that."

It remains for us to add that the research reactor, situated not far from Baghdad, was constructed to a Soviet plan, but was maintained by Iraqis.

Requested by Atomic Energy Agency

*OW1811193091 Moscow INTERFAX in English
1838 GMT 18 Nov 91*

[Transmitted via KYODO]

[Text] 10.9 kg of 80% enriched uranium-235 and 1.2 kg of 36% enriched uranium is the amount of uranium Iraq has returned to the USSR. The expert of the Nuclear Power Ministry who cited these figures explained to IF [INTERFAX] that the enriched uranium had been sold by the Soviet Union to Iraq for research at a nuclear reactor at Baghdad.

Under a resolution of the UN Security Council, Iraq lost title to the uranium. According to the ministry's official, the USSR is receiving the uranium in compliance with the request of the International Atomic Energy Agency [IAEA] that will finally retrieve the uranium. But prior to that, the uranium will be treated in the USSR to reduce its enrichment level. The job will be paid for by the IAEA because the deal is commercial, said the expert. The official refused to disclose the Soviet Union's earnings from the deal.

Commentator Views DPRK Nuclear Issue

*SK1711124991 Moscow Radio Moscow in Korean
1100 GMT 16 Nov 91*

[By station commentator Alekseyev from the "Focus on Asia" program]

[Text] China is strongly against the presence of nuclear weapons on the Korean peninsula. Chinese Foreign Minister Qian Qichen said this at a news conference in Seoul.

He attended the Asia-Pacific Economic Cooperation [APEC] conference. Foreign Minister Qian Qichen stressed: At the same time, the issue of an emergency nuclear inspection of the DPRK should be settled only by negotiations. No force should be allowed.

Station commentator Alekseyev writes:

First, I would like to recall the essence of the issue. Pyongyang signed the Nuclear Nonproliferation Treaty in 1985. It is clearly stated in the treaty that all non-nuclear countries that have signed the treaty should place their nuclear facilities, if they have them, under international inspections.

As specified in the treaty, such non-nuclear countries are denied the right to attach any conditions to international inspection.

Regrettably, however, Pyongyang has avoided solving this issue. Despite the DPRK's argument, this has in a sense raised concerns in the international community.

Lately, the North Korean leaders have repeatedly stated that the DPRK is not engaged in developing nuclear weapons and that it has neither the intent nor the technological capability to do so.

Many countries regard, with reason, such unilateral statements as insufficient, under the present circumstances.

Meanwhile, realistic preconditions for achieving the plan to turn the Korean peninsula into a nuclear-free zone have been provided recently.

Let me remind you: Until now, Seoul has regarded all of Pyongyang's proposals concerning this as purely propagandistic tricks and instantly rejected them.

Now the situation has changed. On 8 November ROK President No Tae-u declared that his government calls for turning the ROK into a zone completely free of nuclear weapons. Even Washington knows such a stand. The United States has said that it was preparing to withdraw its nuclear weapons from the ROK.

I believe that Pyongyang, too, will take this situation into consideration and respond to such a measure, for only when the South and North guarantee it can the conversion of the Korean peninsula into a nuclear-free zone become a reality.

What remains to be done is to find a shortcut to the destination. Of course, Chinese Foreign Minister Qian Qichen was right when he said that no attempt to settle this issue by force should be allowed.

The settlement of the issue needs to be accompanied by an attempt to take into consideration all nuances of the political situation on the Korean peninsula.

The experience acquired by the international community shows that the best way to solve this problem is through the negotiations among all the involved parties.

Intelligence Sources on Nuclear Weapons Control

AU181100491 Hamburg *BILD AM SONNTAG*
in German 17 Nov 91 p 2

[F. Weckbach-Mara report: "Soviet Nuclear Missiles Out of Control"]

[Text] New nuclear dangers are threatening Europe and the entire world. This is the conclusion drawn by congruent reports by intelligence services, which are also in the hands of the FRG Government. According to information obtained by *BILD AM SONNTAG*, satellite pictures and information gathered locally clearly confirm that Mikhail Gorbachev has long since lost control over the nuclear weapons arsenal. There are now four nuclear superpowers in the Soviet Union and one medium-sized nuclear power: Russia, Belorussia, the Ukraine, Kazakhstan, and Turkmenistan. The danger: In some of them there is imminent unrest and civil war as in Yugoslavia.

300 Nuclear Bombs in Turkmenistan

After talks with the new Soviet defense minister, Bernd Wiltz, defense spokesman of the Christian Democratic Union [CDU]/Christian Social Union Bundestag group, told *BILD AM SONNTAG*: "The people I spoke to clearly told me that central power and control over the Soviet nuclear potential can only be achieved if the republics on whose territory these weapons are deployed have some say. The matter would become extremely dangerous if these new nuclear powers—Russia, the Ukraine, Belorussia, and Kazakhstan—make the nuclear weapons an instrument of their republics' national interests. This could endanger Europe's security and the process of nuclear disarmament."

According to information available to the FRG Government, Russia has 15,000 nuclear weapons, including 1,100 with long-range carrier systems, some of them deployed in concrete silos.

- Ukraine: 6,000 (170 intercontinental missiles);
- Kazakhstan: 1,200 nuclear weapons (100 intercontinental missiles);
- Belorussia: 2,000 nuclear weapons (50 intercontinental missiles).

In addition, according to intelligence service reports, there is Turkmenistan. After all, this republic of unrest has 300 nuclear bombs of the size dropped on Hiroshima in World War II.

Therefore, Hans Stercken (CDU), chairman of the Foreign Affairs Committee, warns in an interview with *BILD AM SONNTAG*: "These republics are demanding the power of disposal over the nuclear weapons stored on their territory as a political pawn. Thus, they also document their independence. As nuclear powers they want to be directly involved in the disarmament negotiations in the future. This harbors dangers and potential problems in worldwide disarmament. In addition, the republics have already made claims in the conventional area. Some of them want to enhance armament, while at the same time the governments in some places are becoming increasingly unpredictable."

Olaf Feldmann, disarmament spokesman of the Free Democratic Party of Germany and member of the Federal Executive Committee, states even more clearly: "In the Soviet Union there is a difference between theory and practice regarding power over nuclear weapons. There is the serious danger that these weapons could be used to exert pressure or be actually deployed in civil war clashes by the various groups. The result would far exceed that of the Chernobyl disaster. Therefore, we must now support Gorbachev's and Yeltsin's course toward peaceful democracy."

Danger of War and Civil War

The Social Democratic Party of Germany also sees matters in this way. Its defense spokesman, Erwin Horn, told *BILD AM SONNTAG*: there is an acute danger that individual republics of the former Soviet Union will experience the same developments as in Yugoslavia—with war and civil war. Some of these states that are threatened by collapse have already become nuclear powers; this is the biggest danger of the present, and it might become a matter of existence for the West; because the explosion of nuclear weapons concerns us all. Therefore, it is the command of the hour that all the democratic states support a peaceful and democratic course on the territory of the former Soviet Union, even if that costs money.

Commentary on Transfer of Physicists, Detonators

LD1511213391 Moscow Central Television First Program Network in Russian 1900 GMT 13 Nov 91

[Commentary by M. Osokin; from the "TV Inform" newscast]

[Text] The IAEA, the International Atomic Energy Agency, is discussing a new problem. The West is talking more and more about Soviet nuclear physicists. According to estimates by the American journal *NUCLEONIC WEEK*, approximately 100,000 specialists are connected to our nuclear programs, both military

and civilian, but now many of them may become unemployed. The demand for them is decreasing for a number of reasons—the disarmament process, the cuts in military developments, and the reduction in certain nuclear energy programs after the Chernobyl disaster. And now the French newspaper *LIBERATION* is already putting forward the fear that up to 10,000 Soviet nuclear physicists and specialists may decide to emigrate, and the newspaper's correspondent reports a brochure in English which has appeared in Moscow with announcements such as: 35-year-old engineer prepared to go abroad. But possibly the people who wish to do this do not need English at all.

According to certain signals from the United States, for example, they have no great desire to accept our nuclear specialists. Military programs are being cut in the United States as well, and in addition to this, it will not be possible to use former Soviet citizens in many projects because of security considerations. And so the fear is voiced in the West that, in this regard, emigrees may be tempted to go to Third World countries. And the actions of some of these countries greatly concerns IAEA representatives.

Iraq's nuclear bases have been destroyed, but for example there is already talk about the plans of neighboring Iran. Its leaders have announced that an Islamic state has the same right to possess nuclear weapons as Israel. However, some people are already talking about the danger of the appearance in the Third World of not just new nuclear specialists. About five years ago a scandal blew up in the United States due to the secret sale of detonators for nuclear devices to the Israelis. And now intentions have been heard for the possible introduction to the market of similar Soviet instruments. According to a claim by the *NEW YORK TIMES*, an unnamed Soviet company has already expressed its readiness to sell nuclear detonators to anyone interested for freely convertible currency.

Missiles Commander Notes Need for Control

LD1611150391 Moscow Radio Moscow World Service in English 1300 GMT 16 Nov 91

[Text] The commander of the Soviet troops in charge of strategic missiles, General Yuriy Maksimov, has said that the Soviet nuclear forces must be single and centrally governed. The Soviet Union remains the only possessor of the country's nuclear weapons. Their proliferation is banned by international treaties, said the general, and nobody will be allowed to make several nuclear powers within the Soviet Union. Yuriy Maksimov said that internationally the country has no legal right to do so.

Ministries Remark on Detonator Sales Report

PM1511124491 Moscow KOMSOMOLSKAYA PRAVDA in Russian 15 Nov 91 p 2

[V. Nedogonov report under the "KOMSOMOLSKAYA PRAVDA Investigation" rubric: "Where Will Our Detonator Go Off?"]

[Text] On 13 November Central Television's evening news program reported: Certain persons in the USSR are conducting talks with Third World countries on the sale of nuclear detonators [yadernyye vzryvately]. What kind of a device this is was not stated—it takes the form of a capsule about the size of the palm of your hand. Our correspondent tried to discover who these mysterious vendors are and how much hard currency we will obtain from the deal.

The first call was to Atomenergoeksport:

"This deal is not one of ours," they replied. "We only sell spare parts for Soviet-made reactors. Only people who have some connection with 'military' reactors could have access to detonators."

So who will stay the hand of those who want to spread nuclear weapons?

At the USSR Ministry of the Use of Nature and Environmental Protection, they merely shrugged sorrowfully:

"If anyone is selling detonators, we are powerless to do anything about it. First, we are up to the neck in our own worries; any day now the ministry may be disbanded, so we are more concerned about our own fate at the moment. But the deal, in itself, seems highly likely. We know of similar examples with other types of weapons—non-nuclear. Yes, trading is being carried out, especially by some of the former Union republics."

But the Ministry of the Use of Nature and Environmental Protection declined to give concrete examples.

Deductive reasoning suggested that if anyone should take an interest in the reported sale of detonators, it is the Defense Ministry.

The ministry gave this answer: "We give you our word of honor, these are not our people. We think similar operations were conducted at one time by the former Ministry of Foreign Economic Relations...."

In short, the trail led nowhere.

But then S. Yermakov, director of the Ministry of Atomic Power Engineering and Industry, clarified some points:

"I have heard this report," he said. "But the story of the detonators did not just begin yesterday. A few years ago a major scandal erupted in Europe, when a West European firm sold detonators to Arab countries. The trick was that the Arabs operated through a large number of intermediaries."

[Nedogonov] "But if even those hard-headed businessmen were taken in, wouldn't it be easy to twist us around their little finger?"

[Yermakov] "I assure you, if anyone had made such a deal we would be the first to know about it. Because by selling detonators we would be violating the nuclear nonproliferation treaty."

[Nedogonov] "But couldn't it somehow be done unofficially? Bribe a warehouse chief and take a couple of dozen away..."

[Yermakov] "Impossible! The detonators are stored at special stores, under three-tier surveillance."

"Atomic or not atomic, what's the difference?" That was how academician S.T. Belyayev, department chief at the Kurchatov Atomic Energy Institute, answered my question. "The detonator is needed to bring together the critical masses in the bomb. They can take various forms, but the principle is the same: to create a small conventional explosion. I personally don't understand who would want these things."

Minimal Nuclear Deterrence Called New Strategy

*LD1311161591 Moscow Radio Moscow World Service
in English 2100 GMT 9 Nov 91*

[By Radio Moscow military analyst Lieutenant Colonel Sergey Kozlov]

[Excerpt] Nuclear deterrence is turning into the pivot of Soviet nuclear strategy. At a seminar on military doctrines just held in Vienna, the Soviet representative, Colonel General Bronislav Omelichev, declared that in the post-confrontation period the Soviet Union's security in the nuclear field would be ensured through a minimal nuclear deterrence. Here is a comment on this by our Radio Moscow military analyst, Lieutenant Colonel Sergey Kozlov:

The first deputy chief of the General Staff used the new terminology not just out of a desire to please his Western counterparts, Colonel Sergey Kozlov said. The evolution from seeking a Soviet nuclear parity with NATO to a minimal nuclear deterrence is quite logical.

This can be explained first of all by considerable reductions in the Soviet Union's mass destruction weapons potential. In keeping with the INF Treaty, the Soviet Union has destroyed over 2,000 missiles. The START agreement also passed a verdict on scrapping more than 4,000 more nuclear charges, and in response to the American initiative President Gorbachev has announced the elimination of several thousand tactical nuclear missiles.

The Soviet Union's decisive steps towards nuclear disarmament are not the only arguments in favor of changing both its military doctrine and its terminology. In fact, the elements of deterrence have always been present in Moscow's strategy, though the military leadership preferred not to use the term deterrent for purely ideological reasons. [passage omitted]

Republic Denies Missile-Building Accusation

*OW1611161691 Moscow INTERFAX in English
1448 GMT 16 Nov 91*

[Transmitted via KYODO]

[Text] The Georgian President's press service has officially refuted the accusation by Russia's Vice-President

Aleksandr Rutskoy made November 13 that Georgia has begun producing short-range missiles for the Chechen Republic. It was alleged on Central Television the other day that similar missiles were fired on the capital of Northern Ossitia Vladicaucas from the Georgian territory.

Protesting against "such allegations by Russia's high-ranking officials" the Georgian press service denies that the republic has any plant, materials or technologies for producing such weapons.

Central Control of Nuclear Weapons Discussed

*LD1711212591 Moscow Central Television First
Program Network in Russian 1900 GMT 17 Nov*

[Interview with Lieutenant General Dimidyuk, commander in chief of the Ground Forces Rocket and Artillery Troops, by unidentified correspondent; place and date not given; from the "TV Inform" newscast—recorded]

[Text] [Dimidyuk] We are proud of our type of troops, and we still traditionally meet the holiday on a high note, although you must understand that there are many questions which are yet to be resolved today.

[Correspondent] Missile weapons are situated in Russia, the Ukraine, Belorussia, and Kazakhstan. Some sort of Army property privatization, so to speak, is currently under way in Georgia. What is your attitude toward this situation?

[Dimidyuk] Wherever our missiles are, our firm position is that they should remain under centralized control. I do not think that anybody should lay claim to missile weapons. This is, in my view, impermissible.

[Correspondent] Do you also agree that this should have some kind of sole control?

[Dimidyuk] On the whole, yes. On the whole, yes.

[Correspondent] There is a proverb saying that anything can happen, and even a log of wood can go off as a gun once in a blue moon. Is it possible that such a log of wood could go off somewhere in the republics that currently possess nuclear weapons?

[Dimidyuk] You know, this is absolutely impossible. Nuclear weapons are in safe hands. They are guarded, and no unauthorized action can take place regarding nuclear weapons, as the technical and organizational conditions for their protection are arranged in such a way that nobody can resolve these issues without the center and experts.

Republic Denies Sending Missiles to Chechen

*LD1811172291 Moscow All-Union Radio Mayak
Network in Russian 1630 GMT 18 Nov 91*

[Text] The press service of the Georgian president has refuted the statement by Aleksandr Rutskoy, the vice president of Russia, made on 13 November at a news conference in Moscow that production of medium-range missiles had been organized in Georgia and that they were being supplied to the Chechen Republic. The press service stated that neither the factories nor the relevant materials and technology exist in Georgia for the manufacture of such weapons.

Ukraine Foreign Minister on Nuclear Arms

*PY1411171091 Sao Paulo FOLHA DE SAO PAULO
in Portuguese 11 Nov 91 Section 2 p 4*

[“Exclusive” interview with Ukrainian Foreign Minister Anatoliy Zlenko by unidentified reporter at ministerial office in Kiev; date not given]

[Excerpt] [FOLHA DE SAO PAULO] The appearance of a new nuclear power is awakening fear in the West. Is it justified?

[Zlenko] The world is afraid, but I believe it is unjustified. We do not want to be a new nuclear country. We want to eliminate all nuclear weapons from Ukrainian territory.

The declaration of sovereignty, which was signed on 16 July 1990, clearly established that the Ukraine will be a neutral republic without nuclear weapons. Congress has confirmed that nuclear weapons will temporarily remain in Ukrainian territory. Those weapons belong to the USSR.

We want to eliminate all nuclear weapons, we want to avoid the use of nuclear weapons, and we want to negotiate with the Soviet republics that have nuclear weapons in order to reach a consensus for eliminating that arsenal.

[FOLHA DE SAO PAULO] Even if your Russian neighbor has nuclear weapons?

[Zlenko] In spite of everything. We want to become a neutral, denuclearized republic. The Chernobyl accident compels us to eliminate all nuclear weapons from Ukrainian territory. We are also seriously considering the elimination of our conventional arsenal.

[FOLHA DE SAO PAULO] Will the Ukraine agree to the idea of a “common strategic area,” as was proposed by Soviet Defense Minister Yevgeniy Shaposhnikov?

[Zlenko] We are not currently thinking about that “common strategic area.” We expect to reach a new status through the creation of an army to defend our people and our borders. [passage omitted]

Ukraine Official Views Defense Plans, Nuclear Weapons

*AU1211130491 Prague RUDE PRAVO in Czech
7 Nov 91 pp 1,13*

[Interview with Lieutenant General Vasyl Durdinets, chairman of the Ukrainian Supreme Council Standing Commission for Defense and State Security Matters, by Jan Zizka; place and date not given: “The Ukraine’s Territory Is Indivisible”]

[Excerpt] Vasyl Durdinets, chairman of the Ukrainian Supreme Council Standing Commission for Defense and State Security Matters, led the parliamentary delegation that came to the CSFR in search of experience for establishing its own Armed Forces.

[Zizka] The Ukrainian parliament recently decided to establish republican Armed Forces. What does this mean in practice?

[Durdinets] The decree on the Armed Forces and their subordination to the Ukrainian Supreme Council proceeds from the republic’s declaration of independence. The right to our own Armed Forces was contained in the declaration adopted in July 1990 on the Ukraine’s state sovereignty. Armed Forces are one of the characteristic features of statehood. We have begun to form a legislative base incorporating our concept for defense and for establishing these forces. At the same time, the Ukraine should become a neutral state that does not possess nuclear weapons and that is not a member of any military bloc. When we establish our Armed Forces, we will proceed from the principle of reasonable sufficiency [rozumna dostatecnost]. Apart from the republican Army, collective strategic defense forces—common to all the republics of the former USSR—will be deployed on the Ukraine’s territory. Our republic will contribute financially to their operation and will dispatch recruits.

[Zizka] How do you perceive the chronological scenario for this?

[Durdinets] The Armed Forces will be established in three stages. In the first stage laws will be prepared, a republican defense ministry will be created, and negotiations will take place with Soviet organs. Let me stress that, as far as we are concerned, this will involve a legal and democratic course of action.

[Zizka] And the other stages?

[Durdinets] A reduction in the number of personnel will be involved in the second stage. The third stage, beginning in 1994 or 1995, will be a culmination of all our preparatory work. The entire process will take a minimum of four or five years.

[Zizka] What if the Ukraine’s decision meets with disagreement or apprehension from the other republics?

[Durdinets] We submitted the concept for establishing our own Armed Forces at negotiations in Moscow

attended by the other republics. We became convinced during the August putsch that we cannot guarantee our statehood and sovereignty without establishing our own Armed Forces.

[Zizka] So, you think there is no danger to your relationship with the other republics?

[Durdinets] We will endeavor to resolve problems, should any evolve, by means of consultations and by concluding the appropriate agreements and treaties.

[Zizka] What is the Ukraine's position regarding the nuclear weapons on its territory?

[Durdinets] It is clearly stated in the declaration on state sovereignty that the Ukraine will gradually become a state without nuclear weapons. Today we are not a sovereign nuclear state, as the nuclear weapons on our territory are not Ukrainian. We are embarking on a path of gradual nuclear disarmament essentially under international control. We are interested in the complete destruction of all the nuclear weapons and their components deployed on the Ukraine's territory. We support the initiatives of Presidents Bush and Gorbachev in the nuclear disarmament sphere. The Ukraine is one of the USSR's legal successors and will adhere to the treaty on limiting strategic assault weapons. However, we are fundamentally opposed to redeploying nuclear weapons from the Ukraine on any other territory.

[Zizka] You do not agree, in that case, with the statements made by certain Russian representatives that Soviet nuclear weapons should be concentrated on Russian territory?

[Durdinets] No. We absolutely disagree. Their destruction is the only thing possible. [passage omitted]

Yakutsk Declares Territory Nuclear-Free Zone
OW1311025491 Moscow *INTERFAX* in English
1610 GMT 12 Nov 91

[Transmitted via KYODO]

[Text] The Supreme Soviet session in Yakutia declared the republic's territory a nuclear-free zone Monday [11 November]. This places a ban on the deployment and storage of nuclear weapons, the development of deposits of fissionable materials or the organization of their enrichment, the use of nuclear explosions for peaceful purposes, and the storage of nuclear wastes on Yakut territory.

The latest nuclear test was carried out in the republic three years ago. All in all, Yakutia has survived 12 peaceful nuclear blasts.

The country's first uranium-mining installation opened in Yakutia during World War II. Until recently, there were plans to restore it, since the high level of local uranium's enrichment makes its extraction profitable.

Inquiry Into 1979 Sverdlovsk Anthrax Event
92400030A Moscow *LITERATURNAYA GAZETA*
in Russian No 45, 13 Nov 91 p 2

[Report by *LITERATURNAYA GAZETA* correspondent for the Urals Natalya Zenova, under the rubric "Continuing a Topic": "Once Again on 'Military Secrets'"]

[Text] Yekaterinburg—*LITERATURNAYA GAZETA* was first in the country to conduct an independent investigation on the causes of the 1979 anthrax outbreak in Sverdlovsk. We maintained that this calamity took place not because of consumption of "infested meat," as the official version stated, but after an emergency discharge of substances related to biological warfare ("Military Secrets," *LITERATURNAYA GAZETA*, No. 34, 1990).

This topic was continued in one more article ("Military Secrets, Part II," *LITERATURNAYA GAZETA*, No. 39, 1991), which provided new arguments supporting the same conclusion.

On the basis of this newspaper's investigation, a deputy's inquiry was sent to the president of Russia. Boris Yeltsin assigned the handling of this problem, which produced serious international reverberations, to Aleksey Yablokov, state adviser on ecology and health care, corresponding member of the USSR Academy of Sciences.

This is what A. Yablokov told our correspondent:

"I will see to it that this matter is taken to its logical conclusion. The first step, which we have already taken, was to contact the KGB—let them dig into their archives and officially reply: 'yes' or 'no.' If 'yes,' if the military admits fault, then the issue is resolved in principle, and one of the main tasks that remains is to get more precise figures on the number of families that perished, and to determine the amount of monetary compensation. If 'no,' then a government commission will be created on the basis of the argued conclusions reached by the press."

"However, I would like to state right now, before the investigation of the Sverdlovsk emergency comes to an end: Our parliament should adopt a law that will make the development, production, and storage of biological weapons a criminal offense. A law of this kind was adopted in the United States last year. Also, this crime should be put in the category of those without a statute of limitations—that is, a crime against humanity."

FRANCE

Reductions in Nuclear Forces Announced

92ES0131B Paris *LE MONDE* in French 30 Oct 91
p 14

[Article by Jacques Isnard: "France Will Reduce Nuclear Investments"]

[Text] France next year is going to spend 3 percent less than in 1991 on nuclear programs for the military. This decision is inscribed in the draft defense budget bill for 1992 that will be submitted to the deputies on 13 November. According to Defense Minister Pierre Joxe, it marks "a break with the trend of previous years."

Counting both operational and capital outlays, France in 1991 spent a total of 42.9 billion French francs [Fr] on its nuclear forces, an amount equal to 22.1 percent of its defense budget, though only 5.8 percent of the military's manpower is involved in the nuclear programs.

It is in the area of investment outlays (studies, testing and mass production of equipment) that the 1992 budget will be reduced by 3.28 percent.

Officially, this initiative is presented by the defense minister as the consequence of what he has called "the recomposition of the strategic situation in Europe." The decision affects both the arsenal of strategic weapons—though the nuclear missile-launching submarines seem to have been hit less hard—and the panoply of prestrategic arms.

The reduction in France's nuclear spending is primarily the result of decisions made last summer to cancel development of the S-45, a long-range (6,000 km) strategic surface-to-surface missile, and to scrub deployment of the medium-range (480 km) prestrategic Hades missile.

Slower Pace

But it should be noted that the 1992 budget also includes reductions in armed forces subventions to the Atomic Energy Commission (CEA) and in appropriations for the Nuclear Test Center Directorate (DIRCEN) in the Pacific. These two agencies are responsible for developing, testing and serial production of nuclear weapons. The reduction in their appropriations may be explained by the interruption of the S-45 and Hades programs, but it also foreshadows a decline in the number of nuclear tests conducted each year (from six to four).

Mr. Joxe recently told senators that "the strategic naval component (Editor's Note: missile-launching submarines and the new M-5 sea-to-ground missile program) will continue to get solid support in 1992."

Since the retirement of the Redoutable, the Strategic Naval Force (FOST) has consisted of five missile submarines carrying M-4 missiles with multiple warheads. Not until 1995 will France have a fleet of six strategic

submarines, with the entry into service of the Triomphant, which will carry M-45 missiles that are quieter than the M-4's. Between 1995 and 1997, the force will remain in that configuration. In July 1997, the Triomphant-class Temeraire is expected to enter into service. But by that time the oldest one of the five submarines now on operational patrol will have been retired, and in any event the others will not be armed with the Triomphant's M-45's.

While the FOST will remain the most important component of the deterrent force, the government has nevertheless agreed in principle to accept some slippage in the building program for the "new generation" submarines. Originally, the intent was for the fleet to be renovated at the rate of one new vessel brought into service every 24 months. As revised, the program will reportedly call for introduction of one new vessel every 30 months, and one-for-one replacement of aging vessels as they are retired does not seem to be in the cards. In the end, the FOST fleet is expected to consist of five submarines.

Nuclear Authorities Anxious About Funding Cuts

PM1511152091 Paris *LE MONDE* in French 13 Nov 91
p 13

[Jacques Isnard report: "Atomic Energy Commissariat Concerned About Cut in Nuclear Expenditure in 1992"]

[Text] The chiefs of the Atomic Energy Commissariat (CEA) have expressed their anxiety to deputies of the Defense Commission over the cut in nuclear investments starting in 1992. They foresee serious social consequences, especially for employees of the CEA and its subsidiaries, and reduced military capabilities if, in addition, nuclear tests become less frequent in 1992, as is planned.

Defense Minister Pierre Joxe has not concealed the fact that next year should mark "a break away from the trend of previous years," since the capital funds allocated to deterrence—in line with a policy that adheres to the principle of strict "sufficiency" in the nuclear field—will fall by some 3.3 percent from this year's level.

Philippe Rouvillois, director general of the CEA, and Roger Baleras, the organization's Director of Military Applications (DAM), told parliamentarians with whom they met within the forum of the commission that they estimated that the reduction of their funds from all sources in 1992 would total 9.6 percent, at a stable franc rate. The CEA has both a civilian budget (10.1 billion francs in 1991) and a subsidy from the Defense Ministry (9.7 billion francs) for its military activities. It should also be pointed out that in 1991 this budget was cut by some 500 million francs at the end of the summer. Next year the reduction from the initial 1991 budget will be 7 percent at the current franc rate (or 9.6 percent at a stable franc rate, adjusted to inflation).

The CEA chiefs fear major repercussions from this on spending plans, on the cost of the future dismantling or conversion of some industrial sites (including, it is said, those at Marcoule and Pierrelatte) for which no provision has been made, on the redeployment or diversification of the group's activities over the next several years, and of course also on staff. The trade unions forecast the loss of 400 jobs at the DAM office, which employs some 6,500 staff.

The CEA's director general asked how, under such conditions, it is possible to attract young researchers and at the same time how highly qualified personnel can be reassigned to other tasks.

Brain Drain

The CEA's future military activity is dependent on the 1992-1997 plan, on which the government is taking its time to decide. According to its chiefs, the CEA is affected in two ways: the rate of nuclear testing and the plans—among which it will be necessary to choose—for new strategic weapons such as the M.5 sea-to-air missile.

Speaking to deputies, Mr. Baleras was categorical on the first point. He said that full-scale nuclear tests will remain "irreplaceable" for several years to come, since no amount of laboratory tests will suffice. He also said that France—which now possesses weapons boasting a level of miniaturization comparable to that of some American weapons—must not allow itself to be left behind by the United States, which is again stepping up its research. For his part, Mr. Rouvillois believes that nuclear testing must be maintained in the near future "as near as possible to the present level" of six per year (instead of four, as has been suggested).

But the point that the CEA general manager emphasized most to the deputies was the need for France to avert a brain drain—that is, the loss of research teams' technological capability—if research into improving weapons' operational safety, into their evasion of improving detection methods, and into the field of impact performance is not continued.

Without further explanation, Mr. Rouvillois also made a cautious reference to the plan for an M5 missile deployed on new Triomphant-class strategic submarine and to its spinoff, the secret MS5 project, which involves deploying the same kind of missiles on submarines and on the Albion Plateau (to replace the existing S3 missiles). Apart from improvements over the M4 currently in service, the M5's range—there is talk of its being double that of the M4, which is already 5,000 km—would enable submarines to patrol in equatorial waters, the area of the world where detection is most difficult.

The Navy says that it is particularly attached to the complete implementation of the M5 project. Few Navy staff, however, are in favor of the deployment on the Albion Plateau, at a cost of some 15 billion francs, of M4 missiles taken from submarines meanwhile modernized with M5's. They are even less enthusiastic about the

combined solution offered by the MS5 project. In order to be operational by the start of the next century the M5 project would have to receive initial funds in the 1992 budget.

GERMANY

Bonn 'Quarreling' Over Warship Sale to Taiwan

AU1111154991 Hamburg DER SPIEGEL in German
11 Nov 91 pp 16-17

[Text] The Bonn coalition is quarreling about a planned arms deal with Taiwan. Foreign Minister Hans-Dietrich Genscher and Economics Minister Juergen Moellemann oppose the sale of 10 Meko-100 corvettes and 10 class 209 submarines valued at more than 17 billion marks. The reason: Both fear a new arms race in Asia.

The Chancellor's Office and Defense Minister Gerhard Stoltenberg, on the other hand, favor the arms export because of its effect on the labor market. However, according to the guidelines of 1982, labor policy considerations "must not play a decisive role" in arms exports to countries that do not belong to NATO. A consortium consisting of the armament companies Ferrostaal, Thyssen, Blohm and Voss, Howaldtswerke-Deutsche Werft, and Thyssen Nordseewerke has made a preliminary request to the FRG Government, tempting it with the promise that the ailing shipyards in Mecklenburg-Western Pomerania would also profit from the deal with Taiwan.

However, according to an internal Bonn assessment, this is still completely open, because the general agent and supplier of arms and electronics is to be the U.S. armaments corporation Rockwell International; the west German companies would only build the ships' hulls.

The east German shipyards have received only vague promises that they might receive some orders for merchant ships.

The FRG Security Council is supposed to examine whether the deal violates the "political principles for the export of military weapons" by the end of the year. The armament companies now fear that the competition in France, Australia, or in the Netherlands might get the order for the lucrative Taiwan business.

The northern German shipyard group has a lobby in the Bundestag: More than 100 deputies from the Christian Democratic Union/Christian Social Union, Free Democratic Party of Germany, and Social Democratic Party of Germany belong to the "Bonn-Taipei Parliamentary Group," the strongest lobby of a foreign state in the Bundestag. During their frequent visits to Taiwan the enthusiastic travelers enjoy the special hospitality of the dictatorial regime.

Bundeswehr Reportedly Delivered Arms to Israel
AU1811132991 Hamburg DER SPIEGEL in German
18 Nov 91 p 26

[Text] Currently reports on strange events are accumulating in the Defense Ministry. The Defense Minister received reports from northern Germany that recently Israeli planes without the national emblem landed, had materiel from the National People's Army [NVA] loaded onto them, and left again.

From the south, too, Defense Minister Gerhard Stoltenberg had an unpleasant matter on his table. The Americans and the British were present—which is covered by NATO regulations—in Manching when a top modern MiG-29 was tested by military engineers of the Bundeswehr as to its strengths and weaknesses. Contrary to NATO regulations, however, Israeli experts also participated in the field test.

While more and more details about the German-Israeli military friendship are coming to light, Stoltenberg is playing for time. He hopes that the illegal arms smuggling between the Federal Intelligence Service [BND] and Mosad might be forgotten again. Therefore, everybody is still waiting for his report to the Bundestag on the tank affair.

When the deputies in the Bundestag Defense Committee asked where the complete radar system of a MiG-29 had disappeared to, they were put off by Defense State Secretary Peter Wichert—with the report that has still not been presented.

At the beginning of the year the Israelis picked up a functioning MiG-29 radar system at the Bundeswehr, without the knowledge of the Bonn Government. One of the latest versions is that the Israelis are studying its interference susceptibility. After some months they returned the radar system to the Bundeswehr.

A BND note says that this was only a "loan of Bundeswehr property." However, the loaned object did not come back entirely: The Israelis had pillaged it, and important parts were missing.

It is also questionable whether the arms smugglers in the BND and the Defense Ministry will be able to maintain the justification they have given so far that they did not intentionally violate the regulations of the Military Materiel Control Law or the decisions of the Federal Security Council, because the weapons were not exported but only loaned for tests.

In an order by Defense State Secretary Ludwig-Holger Pfahls of 11 March 1991 to his own Ministry, Israel's desire to get heavy NVA weapons had been rejected. At the end of October German and Israeli military offices, in cooperation with the BND, wanted to ship exactly these weapons secretly from Hamburg to Israel as "agricultural equipment."

An internal note by Stoltenberg says: The aforementioned refusal "did not approve any loans for the purpose of evaluation." It is hardly conceivable that Stoltenberg will be able to wriggle out of the matter by claiming that the BND was responsible for the arms smuggling. Military officers repeatedly deceived the Defense Ministry as to the true destination of the weapons.

Thus, ministerial reports did report that NVA equipment was left to friendly countries, but Israel was not mentioned. Instead, it was said that equipment was sent "to the BND for technical evaluation."

This was inconspicuous. After all, there are valid agreements between the Defense Ministry and the Chancellor's Office and the BND according to which the intelligence service is responsible for the delivery of military materiel to foreign states.

However, the Bundeswehr also made direct deliveries to Israel without involving the BND. According to a note of the Command Staff II/3 (military intelligence service) of 31 October 1991, the FRG Navy let the Israeli Navy have numerous missiles and torpedoes from GDR stock.

The following items were shipped to Israel by air:

- on 16 October 1990 two P21/22 shipborne surface-to-surface missiles;
- on 31 October 1990 seven CH 25/-29/-58 air-to-surface missiles;
- on 6 December 1990 one P-15 shipborne surface-to-surface missile;
- on 8 February two P21/22 missile-tracking heads;
- on 19 July 1990 two Saet-40 torpedoes.

State Secretary Pfahls' express order ("These loans are not to be carried out anymore without my approval") remained unheeded.

Firms Continue Arms Deals With Islamic States
AU1811130891 Hamburg DER SPIEGEL in German
18 Nov 91 pp 23-28

[Text] The Government would prefer to deal with the matter that it is now confronting behind closed doors and by declaring it confidential. The people's representatives have had to accept an order to keep strictly silent.

Once again the issue is the mania of German armament companies to export to the crisis states of the Near and Middle East. At the Bundestag Economic Committee meeting last Wednesday [13 November] State Secretary Klaus Beckmann (Free Democratic Party of Germany) had to admit dejectedly that in Iraq alone UN inspection teams discovered the names of 24 German companies involved in the development of chemical and biological weapons, as well as in the production of the Iraqi Scud missiles that were used against Israel.

Beckmann said that German suppliers "took up a comparatively large part" of the list of the UN Commission that inspected Saddam Husayn's arms arsenals after the Gulf war.

While the state secretary is still playing down the arms scandal—it is "unclear to what extent the exports were illegal"—the Federal Intelligence Service (BND) knows better: In addition to Iraq, its former opponent in the war, Iran, and the regimes in Syria and Libya are trying to build up their nuclear, chemical, and biological arsenals with military technology made in Germany. By the turn of the millennium it is likely that 15 countries will be able "to produce long-range missiles."

At a strictly confidential meeting in the Chancellor's Office in Bonn at the end of last month the sleuths from Pullach warned the government that Germany "represents a main focus" in the Islamic states' "procurement efforts."

BND Chief Konrad Porzner warned that there is "gigantic armament" taking place there. German "technological mercenaries are also participating."

This time the intelligence service is issuing an early warning in order to protect itself against the accusation that it regularly briefs the Bonn Government too late about the machinations of German exporters. The affair of state surrounding the poison gas factory in al-Rabitah, Libya, which was built with the help of German companies, has not been forgotten. About three years ago it became obvious how careless the Kohl-Genscher Government had been—despite many warnings by western intelligence services—in handling the allegedly restrictive rules for the export of highly sensitive technology.

The Germans were pilloried all over the world: In particular the United States and Israel gained the impression that the world's export champion, the FRG, will stop at nothing in pursuit of its economic interests. The vicious term "Auschwitz in the desert," coined by THE NEW YORK TIMES, was widely circulated.

The Bonn rulers will not be able to invent hypocritical excuses again.

Since the beginning of November a confidential dossier drawn up by the BND president on the "worrying" armament efforts by Islamic states in the Near and Middle East has been available. Porzner's somber prediction: "As a result of the high standard of the German machine tool and installation construction industry and its large share in the world market, it is very likely that German companies will continue to be involved in subcontracts for armament projects in the future." Thus, Libyan dictator Mu'ammar al-Qadhdhafi is in the process of building a second poison gas factory, "following the model of al-Rabitah." In addition, the BND's "influx of reports" shows "indications" that the fundamentalist mullahs in Iran have "received" the plans of the al-Rabitah factory—and are now trying "to build a copy of that plant." Before the end of this decade they might

produce not only combat agents such as lewisite, which was used in World War I, but also "modern chemical weapons," such as the nerve gas soman.

The preproducts for the chemical weapons are probably to be supplied by the pesticides factory in Qazvin. German companies have been involved since 1987 in the construction of this plant, too, which is to be completed in 1994. As early as in December 1989 State Secretary Beckmann had to admit in the Bundestag that a "mixing plant for chemicals" had been delivered from Germany to Qazvin.

Ever since then the Iranians have been urging further German subcontractor deliveries for their poison gas factory in Qazvin—most recently during Juergen Moellemann's visit to Tehran at the end of June. However, the dashing economics minister did not give any promises for new export permits. In October he assured Social Democratic Party of Germany Deputy Hermann Bachmaier that there will not be any deliveries to the chemical complex in Iran "until further notice."

This will be of little help. Iran's production of poison gas cannot be stopped any more. According to the sober BND analysis, the "transfer of know-how can take place in other ways and can, at best, be delayed, but not prevented."

In addition, the Iranians have learned from the mistakes of al-Qadhdhafi and Saddam Husayn. They do not hire western general agents for their crazy nuclear and chemical armament projects, as these could be "comparatively easily" spotted by the intelligence services (Porzner). Says the BND: "On the basis of acquired plans"—such as in the case of the al-Rabitah factory—"the parts of the plant are bought individually in different countries and in different ways."

At the same time the deals are veiled. The respective embassies often act as buyers. This "confusing game," the Pullach sleuths complain, "is very difficult to see through" for the western intelligence services.

Even more difficult is controlling the proliferation of technical know-how about nuclear, bacteriological, and chemical weapons and missile technology, not to speak of stopping it. Iraq, which has been put under UN supervision since the Gulf war, will develop "into an important source of know-how," according to the confidential expert report from Pullach.

It is not only the technological mercenaries from Iraq that are in great demand at the moment: As a result of the personnel cuts in the western armament companies after the dissolution of the Warsaw Pact, the collapse of the Soviet Union and now Yugoslavia, as well as after the end of the Cold War, some unemployed experts are moving to the gray markets of dubious third World states.

Whether it is poison gas factories, missile technology, or uranium enrichment facilities for nuclear weapons—one

can buy not only experts but "complete sets of plans" in return for hard currency, the BND warns the Bonn government. In addition, the UN reports on the details of the Iraqi war machinery provides interested Third World states with access "to technical documents that have been kept absolutely secret so far."

The arms race is in full swing. The Third World states, in particular those in the Islamic crescent of crisis, which are hungry for weapons, no longer depend solely on the industrial nations of the north.

Already, Iran, Syria, Egypt, and Pakistan are building production facilities for Scud missiles, which were developed in the Soviet Union, and they are doing so with the help of North Korea and China. On 12 May 1991, the BND says, Iran tested a "modified Scud missile" with a range of 480 km. China also sold missiles to Saudi Arabia and is negotiating with the ayatollahs' regime in Tehran about "missiles of the M-series" with a range of 600 km.

"In the field of nuclear technology" (BND) Iran cooperates in particular with Argentina and China, which has not yet joined the nuclear nonproliferation treaty. "If the Zionist regime (in Israel—the editors) has the right to be a nuclear power, then all Islamic states must have the same right," Iranian Vice President Mohajerani justifies nuclear armament.

"Here German companies might again become the target of procurement efforts," BND Chief Porzner warns. The danger of even "unintentional involvement" of German companies remains great because of the secret methods of buying.

Thus, according to the findings of western agents, cover firms are founded abroad and scientists and students are sent out deliberately to acquire know-how abroad. In one network of companies founded in Great Britain, even the family of Iran's President 'Ali Akbar Hashemi-Rafsanjani is involved.

Well-known "technology dealers," such as the company Allimex/Asada in Zug, Switzerland, which worked for the GDR in the past, are used by Tehran. Harmless sounding organizations such as the "Iranian Research and Development Organization," are buying "sensitive technology" all over the world on the orders of the Defense Industry Organization.

Western countries, including the FRG, greatly helped in developing the Iranian nuclear program. The work, which was started under the shah, was continued at an accelerated pace by the ayatollahs after the Iran-Iraq war and, according to latest BND findings, shows "that Iran is striving to master the entire fuel cycle and wants to become independent of imports."

The intensive dealing with technologies for uranium enrichment is considered "particularly critical." Thus, in 1987 Iran acquired a facility for the electromagnetic

separation of isotopes from China and is currently trying to expand its gas ultracentrifuge program—perhaps with German assistance.

"Already these indications show," the BND analysis says, "that Iran is keeping open the option of 'starting' a nuclear weapons program both for the production of a plutonium and a uranium bomb."

Tehran's accelerated arms research and the cooperation agreement between Iran and North Korea on the transfer of missile technology, which was concluded two years ago, close a perhaps fateful cycle. Because on 23 October the BND reported to the chancellor in Bonn (file number: 30-31c-0326-91) that German companies are helping the communist regime in Pyongyang build nuclear weapons.

From U.S. intelligence sources the BND has received information that the Berlin company Leis Engineering GmbH delivered silicon-alloyed steel to North Korea. This material is excellently suited for the construction of containers for radioactive materials.

Company head Guenther Leis confirmed the delivery of so-called nicrote sheets [Nicroter-Bleche]. The sheets, which were produced by the Duisburg company VDM-Nickel-Technologie, were sent to North Korea at the end of last year and the beginning of this year (size of the order: 100,000 German marks): as parts for repair and expansion work in a fertilizer factory. The steel sheet deal was not objected to by the customs in mid-1991.

The exporters of death always stick to the same pattern: At the Federal Trade Office in Eschborn they apply for permits for the export of seemingly harmless material, which, in reality, is destined by the recipients for armament projects. Despite all assurances by the Bonn government that export controls have been tightened since the al-Rabitah debacle, they still find enough loopholes.

Soon business will become even easier for the merchants of death: "With the introduction of an open EC market," the BND, which is excellently acquainted with arms deals, predicts, "the danger of roundabout deliveries by German companies will increase because of insufficient export controls in other EC countries."

These companies are currently increasing their pressure on the Bonn government. An internal note by the FRG Economics Ministry says that "in order to justify dismissals" attempts are even made to "put the blame on the state export guidelines."

Moellemann's authority is not necessarily the agency that is making business more difficult for arms exporters. On the contrary: In a letter to the minister the responsible VB 10 [expansion unknown] Department complains about the "hesitant processing" of various arms deals by the Foreign Ministry.

This applies to German warships to Taiwan, wheeled armored vehicles for Thailand, hand guns and machine guns for Middle East states, such as Saudi Arabia, Abu

Dhabi, Oman, and Dubayy, and the sending of engineers of the Bavarian aerospace company Messerschmidt-Boelkow-Blohm to service antitank and antiaircraft missiles from Franco-German production "in various Third World states." The company GIMA [expansion unknown], which would like to deliver 800 tank transporters to Saudi Arabia, is now threatening the foreign minister with the "institution of proceedings for failure to act."

After all—business comes first.

Islamic States Continue To Seek Arms, Technology

*LD1711094291 Hamburg DPA in German 0756 GMT
17 Nov 91*

[Text] Hamburg (DPA)— According to the news magazine DER SPIEGEL, the Federal Intelligence Service (BND) has pointed out to the Federal Government that German arms firms continue to be the center of interest for Islamic states as far as arms acquisitions are concerned. Apart from Iraq, it is above all Iran, Syria, and Libya who are trying "to build up their nuclear, chemical, and biological arsenals with war munitions made in Germany," the magazine reports in its latest edition. By the turn of the millennium it is probable that 15 countries will be able "to produce long-range missiles." At the end of October the BND, during a highly confidential session at the Federal Chancellery, emphasized that Germany "represents a main focus" in the Islamic states' "procurement efforts."

The detailed examination by the UN inspectors in Iraq also showed that numerous German firms took part in the development of the Iraqi version of the Scud B missiles which were launched against Israel in the Gulf war. Meanwhile, the report by the U.N. inspectors is also in the hands of the Federal Chancellery, as well as the Economics and Defense Ministries, but has been declared "confidential." Whatever parts have been examined by the U.N. inspectors—"oxidation tank or oxygen supply, the pressure monitoring system or the interior of the ramp chassis—they always came across parts made in Germany, some of them even bearing the TUeV [G. Technischer Ueberwachungsverein] stamp," DER SPIEGEL reports. Essential elements of the al-Walid or al-Nida mobile launching pads came from the Federal Republic, including individual parts of the low loading trailer.

A confidential dossier of BND President Konrad Porzner became available in early November and warns against the "worrying efforts to arm" by Islamic states in the Near and Middle East. According to findings by the BND, Libya is already building a second poison gas

factory on the al-Rabitah model, with German firms involved in the construction.

Meanwhile Iran, the former enemy of Iraq, is also in possession of the al-Rabitah construction plans in order "to build a copy of that plant." Even before the year 2000 Iran will thus be able to produce modern nerve gas agents. It is thought that the pesticide factory in Qazvin, to be completed in 1994 and also built with the help of German firms, is to supply this primary product for the chemical weapons.

BND Warning on Arms Aid to Middle East

*LD1811183291 Hamburg DPA in German 1457 GMT
18 Nov 91*

[Excerpt] Bonn (DPA)—The Federal Intelligence Service (BND) has warned the Chancellery about further aid from German firms for rearming Iran, Syria, Libya, and Iraq with chemical and biological weapons, as well as with nuclear missile technology. This was confirmed in Bonn on Monday by Government Spokesman Dieter Vogel. The Federal Government regarded "this with concern, and we are not exactly happy about the fact that again and again there are firms which apparently strive to bypass the law and export to countries to which they are not allowed to export," Vogel told the press. The relevant state prosecutors and courts would be brought in to investigate suspicions of such activities. "We think it is not good that things like this are apparently still happening," Vogel stressed. [passage omitted]

Defense Ministers on Nuclear Arms

*LD1211151591 Berlin ADN in German 1212 GMT
12 Nov 91*

[Excerpt] Bonn (ADN)—The main concern of the German and Soviet defense ministers—Gerhard Stoltenberg and Yevgeniy Shaposhnikov—is securing European stability, it was stressed at a joint news conference by the ministers in Bonn on Tuesday [12 November]. The path to more security in Europe called for confidence-building measures and relations; secure verification, above all of nuclear weapons; and the continuation of the arms control program, Stoltenberg said. Shaposhnikov arrived on Monday for a three-day visit to Germany. In addition to international issues, the talks also focused on the situation and the withdrawal of the Western Group of Soviet forces. As Shaposhnikov stressed, the existing treaties will be observed, and the withdrawal is passing off as planned. Stoltenberg assured him that the incidents in which Soviet soldiers became the targets of provocations would be energetically investigated. Such attacks are indeed painful, but they are isolated cases. Moreover such things happened before, said the minister, who was once stationed in the GDR himself. [passage omitted]

ITALY

Seven Arrested for Arms Sales to Croatia, Others

*AU1111204491 Paris AFP in English 2025 GMT
11 Nov 91*

[Text] Venice, Italy, Nov 11 (AFP)—An Israeli and several Italian businessmen have been arrested here in connection with an investigation into arms sales to the breakaway Yugoslav republic of Croatia, law enforcement officials said Monday [11 November].

They said that seven people had been arrested Sunday and Monday and that the police were searching for three or four other people. None was identified. Investigators discovered the gun-running scheme through taps on telephones.

They said a five-million-dollar shipment of weapons for Croatia, including missiles, machine-guns, mortars and ammunition, was apparently already en route to the republic but the vessel carrying the weapons has not yet been located.

Law enforcement officials said that members of the illegal weapons racket also apparently attempted to procure radioactive substances. They added that Croatian forces were not their only customers.

SWITZERLAND

Seven Uranium Dealers Arrested**Materials Seized**

*AU1411114391 Vienna DIE PRESSE in German
14 Nov 91 p 20*

[APA report: "Austrian Arrested as Uranium Dealer in Zurich"]

[Text] Zurich—On 11 November a 50-year-old man from Lower Austria and six other people were temporarily arrested on charges of dealing in uranium in a hotel in Zurich. In two suitcases 29 kg of slightly radioactive material were found and seized.

Previous Sales Attempt

*LD1511065991 Bern Swiss Radio International
in English 1530 GMT 14 Nov 91*

[Text] Police in southern Switzerland say seven members of an international uranium-dealing ring who were detained in Zurich on Monday had previously tried to sell radioactive material in Canton Ticino. The Ticino police chief, Maro de l'Ambroggio, said they tried to sell 29 kilos of slightly radioactive material, which was later seized by police during a raid on a hotel in Zurich.